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FIRST-GENERATION DOCTORAL STUDENTS' EXPERIENCES NAVIGATING GRADUATE SCHOOL

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FIRST-GENERATION DOCTORAL STUDENTS' EXPERIENCES NAVIGATING GRADUATE SCHOOL

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Education
at the University of Kentucky

By
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ABSTRACT OF DISSERTATION

FIRST-GENERATION DOCTORAL STUDENTS' EXPERIENCES NAVIGATING GRADUATE SCHOOL

First-generation students who pursue graduate programs face a unique set of challenges and rely on their strengths to help them navigate their graduate programs. This study will look at how first-generation students have navigated their graduate course work. Semi-structured interviews were conducted with 19 doctoral students at Magnolia University where participants discussed the challenges they have faced during graduate school and how they have navigated these challenges. This exploratory study uses social and cultural capital along with community cultural wealth as a framework to analyze how these students navigate not only their coursework but other academic and social aspects of graduate school as well.

Participants in this study faced a variety of challenges including lack of preparation, family, parenting, isolation, written and hidden curriculum, mental health, and funding. Challenges around funding were the most salient for the participants. These challenges were not a result of deficits of the participants but rather systemic inequalities.

While the participants faced many challenges, they also used variety of knowledge, skills and strengths to navigate the challenges they faced, including willingness to ask questions, work ethic, seeking resources and support, and undergraduate program participation. The participants' use of their prior knowledge, skills, ands strengths challenges the deficit model used to examine first-generation students and supports the used of asset-based approach to research and practice related to first-generation doctoral students.

KEYWORDS: First-Generation, Graduate Students, Asset-Based,

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FIRST-GENERATION DOCTORAL STUDENTS' EXPERIENCES NAVIGATING GRADUATE SCHOOL

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DEDICATION

To my uncle, AJ Vance, who inspired my love of education and teaching.

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I have been very fortunate to have a strong support network while navigating my own doctoral work as a first-generation student. There are many people in my personal and professional networks who have provided endless support and encouragement to help make this dissertation a reality. I would be remiss if I did not begin by acknowledging the 19 doctoral students who took the time to share their stories with me. Their willingness to openly share their experiences navigating graduate school not only made this study possible, but will continue to impact the experiences of other first-generation

The University of Kentucky has become a second home to me. The EPE faculty have been a constant source of wisdom and support from the day I was accepted into the program. From my first conversation with my advisor, Dr. Joseph Ferrare, I knew the decision to pursue a doctorate in higher education was the right choice. Dr. Ferrare provided many opportunities for me to develop as a scholar early in my program. Although his professional path took him away from the University of Kentucky, I am grateful for the early guidance and continued support from Dr. Ferrare.

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Beyond my professional network, I have had the constant support of my family and friends. My parents, Jeff and Michelle, have always believed in my and encouraged me to pursue an education. Even on days when I did not believe in myself, they were there to remind me I could do anything I set my mind to. I am also grateful to have the support and encouragement from my brother and sister, Andrew and Ashley. From the many moves to the long phone calls, I am so thankful for all you have done for me.

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CHAPTER 1: INTRODUCTION

Around a college campus, you will likely encounter programs and events targeted at first-generation college students. With increased college access, this is a growing population of students. Most college campuses have an office that is dedicated to first-generation students. Campuses across the country, including Harvard, Vanderbilt, Kansas State, and the University of Kentucky, have programs that focus on the success of first-generation students. Findings from a survey of first-generation student success (Whitley, Benson, and Wesaw, 2018) noted that 73% of responding institutions have a cohort based first-generation student program. Federally funded TRIO programs such as Student Support Service and the Ronald E. McNair Program support first-generation undergraduates on campuses across the United States (www2.ed.gov/about/offices/list/ope/trio/index.html). These programs provide academic, social, and occasionally financial support for first-generation students. However, existing programs lack support for first-generation graduate students which leaves students to navigate the unique challenges of being a first-generation student in graduate school on their own.

Various definitions of first-generation students are used both in research and in institutional practice. The United States Higher Education Act defines first-generation students as those for whom neither parent has completed a bachelor's degree. While some researchers and institutions use the Higher Education Act definition of first-generation students, others use the definition of neither parent having attended college. (Toutkoushian, May-Trifiletti, & Clayton, 2021) Other definitions include students who have at least one parent who has not completed a bachelor's degree (Toutkoushian,

Stollberg, & Slaton, 2018). The issue of who is considered a first-generation student is further complicated by defining who is a parent. The definition even varies within individual institutions. (Toutkoushian, May-Trifiletti, & Clayton, 2021) For the purpose of this study, first-generation doctoral students are those students whose parent(s) or guardian(s) did not complete at least a bachelor's degree. This definition aligns with the United States Higher Education Act definition of first-generation students. Using this definition also allows for the inclusion of students whose parents have some college or an associate's degree. Including these students acknowledges the challenges that first-generation doctoral students can face if their parents did not complete a bachelor's degree even if they have completed some college level coursework.

First-generation students who complete a bachelor's degree are less likely than their peers whose parents obtained a bachelor's degree to continue to graduate school. Using a definition of first-generation as parents never enrolled, Chen (2005) found that only 4% of first-generation students went on to doctoral or professional programs compared to 10% of students whose parents held a bachelor's degree. Carlton (2015) also found that first-generation students are less likely to pursue graduate education.

According to the University of Kentucky Fact Book, while the graduate student population has remained at approximately 7,000 enrolled per year, the number of graduate students who identify as first-generation students has declined from 1,248 in 2009 to 421 in 2018-19. Nation-wide, first-generation students who complete a doctorate over the past two decades has declined from 26% in 1998 to 18% in 2017 (National Science Foundation, 2018). The cause of this notable decline is unknown and requires attention. Winkle-Wagner and McCoy (2016) also note that a significantly lower number

of doctoral degree completions by Black and Latino students, who are likely first-generation students.

Experiences in their undergraduate work give first-generation students' knowledge and skills they did not have before entering college. In addition to the capital gained from any type of first-generation support program the students may have participated in, they also gained experience in navigating campus life such as transportation, dining, financial aid, and housing. These skills are helpful to first-generation students as they enter graduate school. While graduate school presents new challenges, the skills of navigating campus life can help alleviate some of the stress felt by first-generation graduate students. Students may have also had opportunity to build social networks in their undergraduate work that could support them during their graduate work.

Although first-generation students have increased their social and cultural capital during their undergraduate work, graduate school is a distinct experience from undergraduate. It should not be assumed that a student who has completed their undergraduate work has obtained the capital necessary to navigate graduate school (Holley and Gardner, 2012). First-generation students are also more likely to have attended an undergraduate institution that did not have doctoral programs for them to have as reference (Gardner, 2013). The years of exposure to higher education do not necessarily put first-generation students on a level playing field with their peers (Hirudayaraj, 2018). As T. Mark Montoya (2021) noted when recalling his experience in graduate school, he was not on “equal footing” with his classmates like he thought he was after completing his undergraduate degree.

To successfully socialize into academia, students need to understand both formal and informal norms, such as how to write for academic journals or how to network at conferences (i.e., Weidman and Stein, 2003; Lovitts, 2008). A student who has already navigated and completed undergraduate work might be expected to be ready and capable of doing the same for graduate school. However, because of the vast differences in the two levels of programming, it should not be assumed that students will understand how to navigate the complexities of graduate school. While transition to graduate school may be new and difficult for all graduate students, the challenges faced are likely exacerbated because of a student's first-generation status. For example, the latter may be further distancing themselves from their families which may cause additional stress.

In addition to challenges related to norms and capital, first-generation students experience challenges related to systemic inequalities such as a lack of college preparation courses in many high school, high costs of attending college, and a lack of appropriate mentorships and support programs designed for first-generation students. These inequalities create challenges for first-generation graduate students that begin before they even enter undergraduate years. The issues around these challenges can compound as they move through their undergraduate and graduate programs. For example, if a student did not have the opportunity to take college preparatory writing classes, they likely entered college without the appropriate writing skills. While the student may have completed their undergraduate work, they did not develop their writing skills as fully as their peers who came into college with preparatory writing classes. This lack of preparation from high school impacts the student as they pursue graduate education. It is important to note how these continuing and compounding challenges that

started before entering college impact graduate students as we examine the existing literature on first-generation students. Students do not go through a program with a singular identity. First-generation students have other identities that can intersect with their first-generation status and in some cases, present additional challenges to the student. First-generation female students may encounter challenges their male peers do not. As Hamilton (2016) states, social class has an impact on ideas about gender that shape parenting approaches during their children's time in college. Differing ideas about gender roles could cause both internal and external conflict for female first-generation students as they socialize into academia.

Female students may face more stress than their male classmates due to gendered norms and expectations. Additional stress may be caused by lower self-confidence in women, particularly in the STEM fields where female graduate students have few female faculty members to serve as mentors for them. Other stress can be caused by balancing their personal and professional lives. While some males experience stress in this area, females are more likely to be more concerned with the balance of personal and professional regardless of their marital or family status. (Kurtz-Costes et al., 2006).

Identity of place can also create differences among first-generation students. The three categories of concerns of rural students -- lifestyle, money, and academic preparation laid out by McDonough, Gildersleeve, and Jarsky (2010) -- provide a glimpse of the issues that first-generation graduate students from rural areas could be facing. First-generation graduate students from rural areas may have additional, compounding challenges than their non-rural peers.

Social class also contributes to the intersectional identities of first-generation students (Hamilton, 2006). These intersectionalities impact the challenges faced by first-generation students during their graduate work as well as the way that the students navigate their programs. Social class can also have an impact on issues related to the socialization of graduate students into academia.

The required socialization to the norms of academia connects closely to the student's use of social and cultural capital. Pierre Bourdieu (1986) introduced the concept of cultural and social capital in educational research, to help explain the

> "unequal scholastic achievements of children originating from the different social classes by relating academic success…to the distribution of cultural capital between the classes and class functions." (p.17)

Social and cultural capital have been widely used in educational research. However, these concepts focus on a deficit model to describe first-generation students.

In addition to challenges and inequalities, first-generation students bring knowledge, skills, and abilities to our college campuses and graduate programs. Utilizing concepts from critical race theory (Yosso, 2005), community capital focuses on the knowledge, abilities, and skills of communities of color. By applying community capital concepts to first-generation graduate students, this study will go beyond the deficit model and examine what strengths first-generation students bring with them to their graduate studies. The concepts of social and cultural capital, along with community capital, will serve as the theoretical framework to examine how first-generation graduate students navigate graduate school. These concepts alone do not provide adequate framework for assessing both challenges and strengths of first-generation doctoral students; however, combining social, cultural, and community capital provides a strong framework for

examining the experiences of first-generation doctoral students. By juxtaposing the challenges and systemic inequalities faced by the students with the strengths they bring to our campuses, we can better develop programming and policies to serve first-generation students who are pursing graduate work.

Many studies in graduate student research focus on socialization of graduate students (i.e., Austin, 2002, Weidman and Stein, 2003) A relatively small number of studies consider first-generation students who are from one racial group, including Winkle-Wagner and McCoy (2016) and female graduate students (i.e., Kurtz-Costes et al., 2006). The research on working-class/low-socioeconomic background students is also limited. Not all first-generation students fit this category, but a sizable percentage of first-generation students are from lower class backgrounds.

The purpose of this study is to examine how first-generation doctoral students navigate graduate degree programs at a research university. How do first-generation doctoral students navigate not only their coursework but other academic and social aspects of graduate school as well? Within the graduate school experience, the research focuses on application and funding process, family support, socialization, peer networks and faculty relationships.

Despite the vast body of research on first-generation undergraduate students, limited research exists on first-generation graduate students. Most of the existing literature on graduate students does not explicitly discuss the issues concerning first-generation graduate students. Current research on undergraduate first-generation students, as well as existing literature on graduate students, does provide a foundation for looking at the population of first-generation graduate students. Research on the experiences of

first-generation graduate students will have implications for both policy and practice. Knowing the experiences of first-generation graduate students will better inform policies being made related to graduate education as well as provide professors with a better understanding of the needs of their first-generation graduate students.

This study will examine the experiences of 19 first-generation doctoral students at a large public research institution as they have navigated their graduate programs. This study will explore the challenges faced by the participants as well as the tools, skills, and knowledge these first-generation students have used to navigate graduate school. I will highlight the strengths of the participants and challenge the use of deficit models previously used in first-generation student research. This study not only explores the experiences of the 19 participants who shared their stories but also opens the door for future research on first-generation students who pursue graduate programs to inform theory, policy and practice in graduate school programming.

Organization of the Dissertation

After this brief introduction, chapter one focuses on the literature on first-generation students, first-generation graduate students, first-generation faculty, existing support programs for both undergraduate and graduate first-generation students, social and cultural capital, and community cultural wealth. Chapter two explains the methods used to conduct the dissertation study, followed in Chapter three by a selection of participant portraits that describe the contrastive and overlapping experiences of three participants as they navigated graduate school. Chapter four presents and discusses the research data in two main categories: challenges and navigation. Chapter four also includes a discussion of how this study challenges the use of a deficit model when

assessing the needs of first-generation graduate students. The closing chapter summarizes key findings and suggests next steps for research and practice including recommendations for implementation of programs to support first-generation graduate students.

Literature Review

This literature review considers previous research on first-generation students as well as existing support programs for them. Literature on both undergraduate and graduate first-generation students is included. While this study does focus on doctoral students who are navigating graduate school, it is important to recognize graduate students arrive in graduate school with their experiences from undergraduate work. They can bring both challenges and skills with them from that undergraduate experience that will impact how they navigate graduate school.

Finally, this chapter introduces relevant theories related to first-generation graduate students, including those that guide my research: social and cultural capital, and community cultural wealth. Social and cultural capital have been widely used in educational research but primarily focuses on the deficits of first-generation students. Unlike social and cultural capital, community cultural wealth (Yosso, 2005) helps the research focus on the strengths and assets of first-generation doctoral students. While the use of one of these theories alone would not be sufficient, the use of all three theories in tandem provide a strong framework for the design and analysis of this study.

First-Generation Graduate Students

First-generation students are those students whose parents have not completed a bachelor's degree. Students whose parents did not go to college are likely to face more challenges when they enter college. These challenges start before entering the university and persist all the way to issues with successful degree completion. (Cataldi, Bennett, and Chen, 2018) While there is an abundance of literature focusing on first-generation undergraduates, limited research has addressed first-generation graduate students. Many of the studies that do examine first-generation graduate students are focused on one subgroup within the population, usually an underrepresented minority (i.e. Howard, 2017; Olive, 2014; Leyna, 2011) Limited studies examine the first-generation graduate student population as a whole (i.e. Gardner and Holley, 2011; Holley and Gardner, 2012; Gardner, 2013; Roksa, Feldon and Maher, 2018)

Similar to undergraduates, first-generation status in graduate school comes with compounding challenges not faced by other graduate students (Lunceford, 2011). These challenges start with the application process where students may not know how to navigate the “system” of graduate school, including applying for funding. The challenges continue as students advance through their graduate work with limited knowledge and understanding from their families (Lunceford, 2011).

Socialization

Socialization, which is defined as acquiring the interest, values, attitudes, knowledge, skills, and culture of a group which someone desires to become a member (Weidman and Stein, 2003), is also an integral part of graduate education. Graduate

students should be socialized to the norms and values of their respective professional fields. Student's socialization early in life may make successful integration into academia and their field more difficult. Socialization helps to create an individual's habitus, which are class specific dispositions (Lareau & Weininger 2003). The influence of the closer networks on a student's socialization and habitus not only impacts the student before they enter graduate school, but as they are being socialized in graduate school. During the socialization process to graduate education, schools and families provide separate categories of inputs. Schools provide opportunities, demands, and rewards while families and other closer networks provide attitudes, efforts, and self-concepts. The closer networks are more influential to the student. (Coleman, 1987) Students may come in with thoughts and attitudes that will impact how they think and feel about their own abilities.

Weidman and Stein (2003) explore the socialization of graduate students to the norms of academia. They describe the norms in two categories, cognitive and affective. Cognitive norms are those norms that are explicit and usually written in documents such as the department handbook or in the course syllabi. On the other hand, the affective norms are not as explicitly stated and are less formal. The behaviors associated with the less formal, often unwritten, affective norms are learned through observing the actions of those around them and being included in activities (Gardner, 2008).

Participants in focus groups conducted by Lovitts (2008) described two types of knowledge: formal and informal knowledge. Formal knowledge is described more as facts that are stored by the student. Informal knowledge was described as knowledge that is inferred. Examples of informal knowledge are how to do research and how to be a professional in their particular discipline. These types of knowledge are very similar to

the cognitive and affective norms that Weidman and Stein (2003) described in discussing graduate student socialization.

Formal and informal norms can be seen in Garger (Dews and Laws, 1995, p. 51) comparison of the academic "game" to baseball. There are "silly uniforms (regalia), complex rules (tenure), standings (ranks), different leagues (Ivy, Big Ten)" in academia. She also recalls that a colleague had to jump in during a faculty meeting and save her from the attack being made by more senior professors in the room. Just as Charlip (Dews and Laws, 1995) described a hierarchy of institutions, there is a hierarchy within departments which is likely to be an informal norm.

Another part of the "game" includes not only what you know but who you know. Garger (1995) also comments on the importance of who is writing your letters of reference or making calls on your behalf. One difficulty working-class students may face in this aspect of the socialization process relates back to their difficulty making connections with faculty. While most memoirs in Dews and Laws (1995) described having at least one faculty member to call a mentor, most job references require three letters of recommendation and dissertation committees often have four or more members. Lang (Dews and Laws, 1995, p. 167) noted that during the socialization process, he overcame many social class barriers and had become at home in the world of academia. If the socialization process is successful, it is the goal that all students would feel this way and be able to make connections to professors and peers after some time in the program. However, if this is not the case, students may find this part of the socialization process especially difficult. Lang (1995) also noted that he felt part of his success was due in part to his status as white male.

Social capital, as described by Bourdieu (1979/1984), is obligations, responsibilities, and relationships. Relationships in the sense of social capital can be used as a form of currency in social settings to advance to a greater status in the setting. Relationships can be either formal or informal (Winkle-Wagner and McCoy, 2016). When considering the importance of faculty-student relationships to underrepresented graduate students' success, these relationships could be considered a form of social capital necessary to obtain a graduate degree.

Faculty advisors play a key role in graduate student socialization (Austin, 2002.) They can be considered gatekeepers and are likely the first faculty interaction an incoming graduate student has after admission. While not the only persons students will make connections with, faculty member relationships are important to the success of the graduate student. Creating relationships with advisors and faculty members is important to the development of a graduate student (Gardner, 2008). Faculty can model disciplines, like the written and unwritten expectations of academia, to help offset a lack of preparation and knowledge of expected norms (Willison and Gibson, 2011). When discussing his experiences in graduate school, Flores (2021) notes that while he did have the emotional and financial support of his partner and family, the most important relationships were with his mentors in graduate school. Frequent, positive interactions with the advisor, and other faculty members, help create a supportive department environment. A supportive department can lead to an increase in student research participation. (Weidman and Stein, 2003)

Environment is described as one of the six resources needed to make a successful transition to being an independent researcher (Lovitts, 2008). Environment in this context is separated into macro and micro. Students have little control over the macroenvironment, which is the overall culture of graduate school. The microenvironment includes supports that primarily included faculty. Based on focus groups, the support was partially a function of the department with the faculty advisors being key to the success or failure of student. The advisor was not only described as providing support, but the student was receptive to what the faculty member had to share with them. This description of the role faculty mentorship plays in the success of a student in completing doctoral work reflects the importance of the creation and use of social capital in the form of faculty-student relationships.

Charlip (1995, p. 37) stressed the important role that mentors played in her graduate education. By helping guide her through the system, answer questions, and provide reassurance, these mentors helped her complete her graduate education. Lang (1995, p. 172) recalls the support received from his dissertation advisor in both academic and personal issues of graduate school. Lang (1995) also recalled the importance of a member of his thesis committee who also served on his dissertation committee. He, and his wife, provided support throughout Lang's graduate programs.

Faculty mentors at both the undergraduate and graduate level are both important. Perueros (1995, p. 95) recalls the influence Dr. Vincent Moran had on her desire to pursue graduate education. Dr. Moran had never judged or discriminated against her for being a woman or Latina. He provided her meaningful feedback on papers that encouraged her. Warren (1995, p. 112-113) noted a different experience with

undergraduate faculty. She received little help in finding internships from faculty members and was often referred to the bulletin board for postings instead of being welcomed into the professors' offices.

Although these relationships are key to student success, not all graduate students are afforded the opportunity for these interactions. In addition to the majority of interactions being social, participants in a study by Weidman and Stein (2003) reported that they had more interactions with peers than with faculty. These student-faculty relationships also vary by department (Austin, 2002). A lack of interaction with faculty members prevents first-generation graduate students from building strong professional networks that could assist in their transitions to faculty members themselves (Hirudayaraj, 2018).

While the importance of faculty mentorship is clear, it is not always easy for working-class students to establish these relationships with their faculty members. Pegueros (1995) also provides an example of the difficulty in developing strong academic relationships with faculty in college. During a discussion about graduate work with one of her male professors, she was openly laughed at. Incidents like this make connecting with faculty difficult.

Another contributing factor to creating relationships with faculty can be the lack of self-confidence and fears of being "found out" that students from working-class background might have. Even after completing a master's degree when preparing for qualifying exams, Christopher (1995, p.142) describes the lack of confidence she felt going into the exams:

> "I'm still just me, a working-class kid from a small town who knows the theme songs to Gilligan's Island, Gunsmoke, and Hogan's Heroes but doesn't know Plato from Herodotus and doesn't care. And I feel like this exam is where I'm finally going to find out that there are a lot of secrets that they all know that they've been keeping from me so that I won't make it into their cozy inner circle. This is either paranoia or good sense; it is impossible, in my position, to know which."

In the end, Christopher passed the exams and learned that she was the only one who ever had a fear that she would fail.

Besides making a connection to faculty mentors for support, students may find comfort in peer support during their graduate education. But much like the difficulty found in making positive relationships with faculty, students may also find it difficult to make peer relationships. One difficulty could be the lack of connection between working-class students and students from middle- and upper-class backgrounds. Working-class students see their peers having confidence in class discussions and department functions.

Another issue with making peer connections is grounded in the lack of open discussion about the different social classes of the students. Lang (1995, p. 167) notes he knows there must be other working-class students in his classes and on campus, but nobody talks about their social class backgrounds to be able to identify each other and connect.

While creating peer support groups may be difficult for working-class students, there were accounts in these memoirs of students who succeeded in that task. Warren (1995, p. 118) describes the close relationship to the cohort of other African American graduate students who became her family during her program. They provided social and emotional support to each other. The group also had an aspect of financial support by providing childcare for each other and one member helping provide car maintenance for

the rest of the group. This example shows the important role peers can play in the success of working-class graduate students.

The lack of relevant of current forms of capital could hinder a student if they do not create relationships within their new field that can hinder their socialization into academia. In the case of both cognitive and affective academic norms, these norms are from their new field. Some students have indicated they rely on family or friends as primary support in navigating graduate school (Austin, 2002). For first-generation students from low-socioeconomic backgrounds, continued reliance on family may not allow them to create the necessary social and cultural capital to be successful creating relationships and socialization into their new field. In the case of friends, these could be positive interactions with peers in the new field that could help the student increase the amount of appropriate capital they possess that can aid in the socialization into their new academic homes.

Social and Cultural Capital

Socialization is described as the process by which people acquire the knowledge, skills and dispositions that make them members of society (Brim and Wheeler, 1966). Based on this definition, a connection could be made between socialization of graduate students and their creation and use of social and cultural capital. First-generation graduate student success is based on the student's ability to adjust to their new social setting and acquire the capital necessary to be successful.

Graduate students, including first-generation, will enroll with an existing bank of social and cultural capital. Donahoo (2018) states that students have also acquired the appropriate amount of academic capital needed to be accepted into their graduate programs What becomes important is the field, or social setting, (Bourdieu, 79/84) for the exchange of various forms of capital. The current social and cultural capital a student possesses may no longer be relevant to the field they are now in. This includes capital obtained from their families. Family background is often considered the primary source of capital. When recalling their experiences in doctoral studies, Vasil and McCall (2018) felt the some of the challenges they had faced were due to not inheriting the cultural capital you needed to be successful in graduate school. The further a student progresses through their program, the further removed their experiences become from those of their family and friends (Holley and Gardner, 2012). However, as a student advances into graduate programs of study, the role of family background has on social and cultural capital is less salient (Winkle-Wagner and McCoy, 2016); students have also acquired cultural and social capital through their prior education.

Lovitts (2008) identifies six personal resources, some of which are related to capital resources, that are needed for successful completion of a doctoral degree: domain-relevant skills (intelligence and knowledge); creativity relevant processes (thinking styles and personality); and task motivation (motivation and environment). In the study, Lovitts (2008) used focus groups of faculty members from seven different departments who were considered to be high PhD producing faculty. Participants in the focus groups were asked to describe students who made successful transitions to independent researchers and those who had more difficulty or did not complete the process. Some of the descriptions

of students who successfully completed their doctoral programs included resources that were capital obtained through background. First-generation students may have had the opportunity to acquire these forms of capital during their undergraduate studies, but it is likely that they are entering their programs of study with lesser amounts of these resources than their peers due to a lack of relevant capital.

Social capital, as described by Bourdieu (1979/1984), is obligations, responsibilities, and relationships. Relationships in the sense of social capital can be used as a form of currency in social settings to advance to a greater status in the setting. Relationships can be either formal or informal (Winkle-Wagner and McCoy, 2016). When considering the above description of the importance of faculty-student relationships to graduate students' success, these relationships could be considered a form of social capital necessary to obtain a graduate degree

Winkle-Wagner and McCoy (2016) also discuss the concept of habitus in relation to graduate school. Continuing to use Bourdieu (1979/1984), Winkle-Wagner and McCoy (2016) describe habitus as a set of dispositions. These dispositions can impact the way a student sees the alternatives available to them. Often, a person's habitus is influenced by their parents and can be impacted by the social class of the parents but can also change overtime with new experiences and capital acquisition.

The concepts of social capital, cultural capital, and habitus are not independent of each other. They can work together in a particular field to allow a student to advance or remain in the same status they entered the field in. Habitus is an outlook that can affect the number of options a student sees available to them when trying to create social and cultural capital with which to navigate graduate school. If a student does not identify

options available to build relationships with their professors and peers, their creation of social capital may suffer. Habitus may also impact the ability to create cultural capital during graduate school. The use and creation of capital could change a student's habitus to allow them to gain more capital and advance their social standing in the field; however, if a student does not gain capital, it could continue to cause the student to have a disposition that they do not have options or alternatives to gain access to capital and eventually impact the student's sense of belonging or degree completion.

First-generation graduate students also have the experience of undergraduate studies that could influence and alter their habitus from the outlook they first had when entering college. Individual experiences in undergraduate work may impact their ability to create and use social and cultural capital in graduate school. Post-baccalaureate students studied by Winkle-Wagner and McCoy (2016) indicated that participation in a summer bridge program before attending graduate school had an impact on their habitus by allowing them to gain capital before entering their first graduate class.

Students from families with parents who have a college education are more likely to be supported in college attendance. The expectation of going to college may also be ingrained in the social and cultural capital the students have access to. Family social capital is linked to the completion of high school (Byun et al, 2017). When entering undergraduate programs, the social capital needed will be different than that of what was needed to complete high school and the need of social capital in graduate school will be different from that needed in undergraduate studies. A student's lack of relevant forms of social capital could be a contributing factor to drop-out rates in both undergraduate and graduate programs.

The lack of relevance of current forms of capital could hinder a student if they do not create relationships within their new field. In the case of both cognitive and affective academic norms, these norms are from their new field. Some students have indicated they rely on family or friends as primary support in navigating graduate school (Austin, 2002). Sweitaer (2009) noted that doctoral students are likely to make connections outside of academia that provide a source of support and advice.

Community Capital and Assets Based Research

Most studies of first-generation students focus on the deficits of the students. Only a few studies address the persistence of first-generation students (Sommers, Woodhouse, and Cofer, 2004). In practice, most campuses frame the first-generation identity around need (Sablan and Van Galen, 2021) rather than around resilience. While it is important to recognize the challenges first-generation students face, it is equally, if not more, important to recognize that many challenges stem from systemic inequalities rather than personal deficits. We must see the strengths that first-generation students have and use. Using a critical race theory lens, Yosso (2005) challenges the notions of traditional cultural capital research by addressing the strengths of Communities of Color. This approach should also be considered for first-generation graduate students.

Community cultural wealth (Yosso, 2005) utilizes the concepts of critical race theory. Critical race theory draws on scholarship from many disciplines including sociology, women and gender studies, and law (Yosso and Garcia, 2007). The five main characteristics laid out by Daniel G. Solórzano (1997) include: 1. The intercentricity of race and racism with other forms of subordination; 2. The challenge to dominant ideology; 3. The commitment to social justice; 4. The emphasis on experiential

knowledge; and 5. The transdisciplinary perspective. The use of critical race theory in relation to cultural wealth challenges the deficiency model of social and cultural capital presented by Bourdieu and Passeron (1977) on unequal school outcomes. Yosso (2005) notes that Bourdieu's use of capital is often used in educational research to discuss the differences in educational outcomes by different races. Social and cultural capital are also used to discuss differences among first-generation and continuing-generation students (e.g., Byun et al, 2017; Winkle-Wagner and McCoy, 2016). The use of traditional social and cultural capital models to discuss first-generation students focus on the deficit of the student. By applying Yosso's community cultural wealth model (2005), the focus is taken away from individual deficits and instead looks at systemic inequalities and individual strengths.

Recent studies have begun to incorporate more assessments of the strengths of first-generation students. Duffy et al. (2020) challenge the deficit model of approaching first-generation students by a critical cultural wealth model to examine the well-being of first-generation students. By looking at how overall well-being and academic and career outcomes were interrelated, Duffy et al. (2020) found that reducing the financial stress and discrimination of first-generation students would increase students' sense of belonging as well as their work and career perceptions.

The assets of first-generation students continued to be examined by Brown, Ramrakhini, and Tate (2020). As the title of their article suggests, first-generation students "are not a problem to be fixed." Brown et al. (2020) acknowledged that the previous research on first-generation students was enlightening but little research has

focused on the strengths of the students. The study presented by Brown et al. (2020) focused on the pathways to success for first-generation students.

Continuing to focus on strengths, Tate et al. (2015) found that first-generation students were adaptable, motivated, persistent and self-reliant. While examining the socio-cultural influences of first-generation doctoral students, Holley and Gardener (2012) found that some of their participants saw the assets of being a first-generation student. Students saw things like their work ethic and motivation as assets. Half the participants in Brown et al. (2020) noted that their parents' work ethic was an inspiration for them. Mullins (2018) also noted that the study participants had a strong work ethic that was a resilience factor. The participants credited their work ethic to their working-class backgrounds. Other recent studies also focus on the strengths of first-generation students (e.g. Brow et al., 2020, Tate et al., 2015, Holley and Gardner, 2012) and support the continued use of Yosso's (2005) theories to examine first-generation students' experiences.

Familial Supports

When it comes to the support by family, including the understanding and encouragement of educational purists, most of the memoir authors in Dews and Law (1995) noted they had family support to obtain an undergraduate degree. Their families expected the children to obtain a degree and then find a well-paying job. Beyond that, families seemed confused and even dismissive of continued higher education. Families of first-generation students may not understand the need to pursue an advanced degree beyond the undergraduate degree (Martin, 2018). Other research on first-generation students showed that students have less encouragement from their families to attend

college in the first place (Terenzini et. al, 1996), although Mullins (2018) found that most of her participants who were pursuing terminal master's degrees had at least one parent who offered support. The support the participants' parents offered was not as specific as the support given by their peers' parents, but the participants appreciated the support they were given. The support given by their families may also be hindered by the physical distance between the student and their families, as Rodrigeuz Coss (2021) discussed in her personal account of navigating graduate school.

For those authors who entered graduate study later in life, their parents could not see why they would leave their careers to attend school again. (Charlip, 1995, p. 36) Other family members may make fun and mock the "student status" of the authors. Christopher (1995, p145) recalls an interaction with her brother after not seeing him for quite some time where he asked "You're still in school? For how long?" Garger (1995, p. 45) recalls the turmoil she experienced was rooted in her family's lack of understanding.

Other issues with family may arise from the expectation that the student should be earning a living to support themselves and/or their family after completion of their undergraduate degree. Some families might expect the student to attend college for the sake of having a career (Garger, 1995, p.72) Others may feel that they not only need to support themselves but now it is expected of them that they contribute back to the family. Low wages of graduate student assistantship do not allow for contributing to the family. Lawler (1995, p.64) compared the wages of her assistantship to the poverty faced my Middle Age peasants. These low wages may also be hard for parents to understand. If their son or daughter has completed college, why are they willing to go back to college to earn such little salaries? (Charlip, 1995, p. 36) Garger's parents would not speak to him

after he decided to leave accounting to return to school for graduate studies. They felt ashamed of him for leaving a high paying job to teach high school and go to graduate school. (Dews and Laws, 1995, p. 47)

The ability for the parents of first-generation graduate students to provide social-emotional support to them is made more difficult by their lack of understanding of college and graduate education. Even if parents are willing to support their children in graduate studies, they lack the experiences needed to understand the demands and expectations of graduate school. This makes communication with their parents difficult for first-generation graduate students.

Identity and Belonging

As noted above, first-generation graduate students can have challenges related to their familial support networks. Certainly, all graduate students bring familial experiences a to graduate school. Austin (2002) discusses both formal experiences and personal backgrounds that have an impact on how a student will develop while in graduate school. With personal background playing a role in the experiences and development of a graduate student, it is important to include how social class could impact the experiences of first-generation graduate students (Ostrove, Stewart and Curin, 2011). While not all first-generation students are from low-socioeconomic backgrounds, many of them fall into this category.

Ostrove et al. (2011) also described sense of belonging as important to graduate student experiences and the desire to become professors at top universities. They note the primary impact on belonging to be financial struggles. A lack of belonging also

negatively correlated with academic self-concept. Their findings indicate a need for institutions to help foster a sense of belonging among poor and working-class students.

Other key factors in a sense of belonging include academic adjustment, efficacy, and self-concept. These factors impact the overall success of the student. While important for all students, these factors, especially academic self-concept, are crucial to the outcomes of underrepresent student populations. (Ostrove et al., 2011)

Another consideration when thinking about belonging is race and gender. Belonging to a minority group can even further the feelings of a lack of belonging (e.g.: Gardner, 2013, Barney, 1995). Although Latinx is the largest minority group in the United States, they remain largely underrepresented in graduate education and in the professoriate with only 4.1% of professors identifying as Latinx (Martinex, 2018). A lack of representation of minority groups could lead students who identify with these groups to feel a lack of belonging while pursuing their graduate studies. Lower levels of representation and fewer opportunities to engage with faculty of similar backgrounds can also have a negative impact on first-generation, underrepresented minority graduate students' ability to identify their own abilities and self-efficacy. (Litson, Blaney, and Feldon, 2021).

Societal and workplace gender inequalities could indicate a greater lack of belonging for female students. Women in STEM, who are generally underrepresented in the STEM fields, experience inequalities in their male dominated disciplines (Kurtz-Costes et al., 2006, Litson, Blaney, and Feldon, 2021) Inequalities in areas such as funding and research opportunities could increase the lack of belonging for female students in STEM. Belonging may also be impacted by a lack of female faculty in STEM

to serve as mentors to female graduate students. Female graduate students in STEM who are looking at careers also find careers in science research do not align with their own family and relationship goals (Newsome, 2008). Females who pursue STEM graduate programs may also face some of the same microaggressions, such as objectification, marginalization, and silencing, faced by female STEM faculty found by Yang and Carroll (2016). The microaggressions faced by the female faculty also differed by rank, age, and ethnicity with tenure-track female faculty experiencing more microaggressions than those who were not.

In the case of graduate students from working-class backgrounds, Ostrove et al. (2011) found no significant difference between males and females. Ostrove et al. (2011) suggest that could be because the disadvantages of coming from a working-class background may supersede the advantages gained by being male. Social class has an impact on the ideas about gender that shapes parenting approaches during the college years (Hamilton, 2016), which may also impact female students in their graduate programs. Parents in lower social classes were more practical in their ideas about college majors and goals for their daughters. These parents expected their daughters to pursue fields like teaching and nursing, then to marry. (Hamilton, 2016) Pursuing graduate education would be in direct contradiction of the parental expectations lower-class students may face.

Students may have issues with feeling they do not belong in their discipline or in academia. This lack of belonging can create a sense of "homelessness" where the student does not feel that they fit in at their "new academic home" or in their "old home" with their family and friends. "It makes me feel like a misfit in both worlds" (Barney, 1995,

Christopher, p. 141) Students may find it difficult to connect with their family after leaving for graduate school (i.e. Dews and Law, 1995, Christopher p. 143-145). Patton (2012) described the experiences of one student who felt like she was not at being accepted by her family. She recalled that while their comments were not malicious, she felt as if she was being told she was not like her family anymore.

Lang (Dews and Law, 1995 p. 161) describes these "homes" in terms of class. He has traveled class lines and is both an insider and an outsider in both spaces. Students have a feeling of uneasiness in both their new academic home, where they are unsure of the new rules and norms, but they also no longer feel comfortable in their old childhood homes where they may not be receiving full support and understanding for their academic pursuits. They may have had a change in values or ideals that no longer align with those of their family and friends at home (Dews and Law, 1995 Christopher, p. 140). Cappello (Dews and Law, 1995, p. 130) describes that working-class academics "never fully move-in" their new home.

They may face challenges and judgements from family members during visits. The lack of understanding and support for graduate education can cause students to have many internal conflicts. Visits come become just that, a visit, by a visitor. When they do return home for a visit, they could find themselves "code switching" to attempt to fit in at the place they once felt most comfortable. In *This Fine Place So Far From Home: Voices of Working Class Academics* (Dews and Law, 1995), PhDs and doctoral students describe their accounts of graduate school and being part of academia. Martin (Barney, 1995 p. 85) describes the conversations had when he visits his Kentucky home to include "…family, food, and basketball but not politics or religion…"

On the other hand, both faculty and graduate students from working-class background, which includes many first-generation students, may experience alienation or isolation in academia (Ostorove et. al, 2011). With situations that cause a student to feel as if they don't belong in either their new setting or in their previous setting, it could cause a student to feel lost and negatively impact their academic self-concept.

Other class related challenges can be due to the social norms in many higher education institutions being rooted in elite, upper-class culture. Fitting in may require the adoption of social norms such as taste in music, art, and culture as well as how to present yourself in social situations such as dinners and cocktail parties. First-generation graduate students from working-class backgrounds may find it difficult to navigate the conflicts between their working-class identities and the upper-middle class norms of higher education. (Standlee, 2018) The challenges faced adapting to upper-middle class norms could be related to a lack of relevant forms of cultural capital.

Along with the new norms of graduate school, students are also expected to create a new identity. They are transitioning from a consumer of knowledge to a producer. (Ostrove et.al, 2011) This expectation to create a new professional identity may lead students to feel a lack of belonging.

These conflicts of being both an insider and an outsider may also have impacts on the identity of the students. Some students knew going into college they were working class. Others had been sheltered from the fact in communities where there were little to no class differences. Through filling out forms and answering questions, some students felt like they were being made different for their class status. There is value given to their parents' occupations and educational levels with every box checked. (Dews and Law,

1995, Hicks, p. 152) This class status also becomes a part of their identity. Peguros (Dews and Law,1995) felt that even though marriage and education had changed her class status, she was still the working-class Latina at heart. Martin (Dews and Law, 1995, p. 86) indicates he is both sad and glad his son does not have the same class roots that he had.

Winkle-Wagner and McCoy (2016) noted that through the process of socialization in graduate school, some under-represented students, including first-generation, may feel the need to abandon the identities associated with their background. As discussed above, socialization of graduate students is important to the student's success; however, if the student feels the need to abandon previous identities, they may lose a sense of belonging that could ultimately impact their academic degree attainment.

Beyond graduate degree completion, first-generation students may also have difficulty assimilating and finding a sense of belonging in their new environment. For students who graduate and then pursue careers, the socio-cultural challenges continue. They may also enter graduate school with little understanding about careers in their chosen programs and have little understanding of how the recruitment for jobs in their disciplines works. (Hirudayariaj, 2018)

Finances and Funding

Funding is an important aspect of graduate life and has come into the public eye in recent months as the government looks at new tax legislation. Discussion about college cost and financial aid seems to be a topic in the news more often than in the past. Many

of the discussions revolve around undergraduate cost and the Free Application for Federal Student Aid, or the FASFA.

The struggles that undergraduate students have in navigating the financial aid process likely continue into graduate school, especially for first-generation students who do not have the social supports to assist them with the funding process. Many first-generation graduate students already face financial issues. A lack of understanding of the funding process likely increases the financial stress they feel (Gardner, 2013). Forbes, Schlesselman-Tarango, and Keeran (2017) discuss the importance of funding in academia to both graduate students and professors. They also note that not all graduate students have the same access to support or services. This support could include assistance to find funding. Funding is also positively related to both graduation rates and paper publications of PhD students (Larivière, 2013). Rural first-generation students have particular concerns related to finances (McDonough, Gildersleeve, and Jarskey, 2010) that may further impact their decision to enroll in graduate education and their financial stress if they do pursue graduate degrees.

First-generation graduate students are also more likely to rely on their own resources to support themselves than their continuing generation peers, including taking out more student loans for graduate education (Hoffer et al., 2003). When examining the experiences of working-class graduate students in rhetoric and composition programs, Marquard (2018) found that his participants had financial difficulties and insecurities that their peers did not because the working-class students lacked the large sums of money that the parents of their peers were able to provide.

Graduate programs are a significant investment of time and money. The further into a program of study a student goes, the more investment by the student, and for those receiving funding, by the institution itself. (Nesheim, Guentzel, Gansemer-Topf, Ross, Turrentine, 2006) Students from lower-class backgrounds are also more likely to struggle with the residual cost of graduate school beyond what their funding covers (Ostrove et al., 2011). The restrictions placed on most graduate student assistantships for students to work limited hours and not work outside jobs creates additional financial stress for those students with limited financial resources (Holley and Gardner, 2012). These restrictions on the hours that can be worked outside of their assistantships only increase the economic disadvantages that first-generation students from low-income backgrounds face (Sablan and Van Galen, 2021). Daiz (2021) recalled a time during her doctoral program when she was scolded for working over 30 hours a week and warned not to do that again but was offered no additional funding to help her meet her financial needs.

Students who do hold jobs outside of academia, such as bartending or serving to make ends meet, could be missing opportunities to pursue both paid and unpaid opportunities beneficial to their careers. By missing out on opportunities for experience relevant to their resumes or curriculum vita, they are placed at a disadvantage when they enter the job market (Hirudayariaj, 2018). The need to work additional jobs can also increase the time to degree (Diaz, 2021).

First-generation students are also likely to have higher debt from their undergraduate education (Perna, 2004), leaving them with much larger sums of debt after they complete their graduate degree programs. Larger sums of undergraduate debt may also be a barrier that prevents first-generation students to enrolling in graduate programs

to avoid the possibility of taking on additional student loan debt (Ortagus and Kramer, 2020). Carlton (2015) also found that undergraduate debt negatively impacted first-generation students' likelihood of enrolling in graduate or professional programs. The negative impact that debt has on first-generation student graduate school enrollment may be due in part to a lack of understanding of payback options, such as Pay As You Earn and loan forgiveness programs (Martin, 2018).

When examining the impact of first-generation programming, Carlton (2015) found that scholarships and other funding during undergraduate were directly related to first-generation students' post-graduation aspirations. More research needs to be done on the impact of undergraduate debt on the enrollment of first-generation students in graduate programs as the current research is divided with Chen and Bahr (2020) finding there was not significant impact on the application and enrollment in graduate school of first-generation students by their undergraduate student loan debt.

Financial issues are also part of a larger issue of belonging. Other key factors in a sense of belonging include academic adjustment, efficacy, and self-concept. These factors impact the overall success of the student. While important for all students, these factors, especially academic self-concept, are crucial to the outcomes of underrepresented student populations. (Ostrove et al., 2011) The lack of financial resources also puts a strain on first-generation graduate students' ability to participate in extracurricular activities. Students who do choose to participate in extracurricular activities may be prioritizing these activities over their own basic needs. (Martin, 2018)

One of the challenges that was mentioned in many of the memoirs included in *This Fine Place So Far from Home: Voices of Academics from the Working Class* (Dews

and Law, 1995) was the struggle to even apply to graduate school. Without the support, both financial and social, at home, the students were left to fend for themselves in most situations. With the financial burden of the application fee, along with the fees to take and submit scores for entrance exams, the cost of even one application can be over one-hundred dollars. Even if the student could come up with the money, they still needed to complete the application that is much more detailed and complex than the application to undergraduate admissions.

When examining the recruitment and retention of underrepresented graduate students, including first-generation students, Poock (2007) found that limited funds were available to support underrepresented graduate students. Less than half of participants indicated funding opportunities for underrepresented students and those that were provided were often small in both number and amount awarded. The majority of participants who indicated their institution provided specific funding opportunities also indicated the awards were less than $1000 each and there were fewer than five awards given each year.

Ostrove et al (2011) also found that family social class background was negatively related to the current financial struggles of graduate students. Students from lower class families are more likely than their middle to upper class peers to struggle financially while in graduate school. This could mean that many first-generation students are facing a high number of financial difficulties. However, the study also notes that students from lower class backgrounds still struggled financially even when receiving funding due to the residual cost of attending graduate school that are not covered by their funding.

It is important to note that the financial challenges for first-generation, working-class students do not end when they finish their graduate degrees. For students who enter academia, there are continued financial challenges as they enter their careers. The debt from graduate school, along with credit card debt, periods of unemployment, and financial reasonability to their relatives all prevent having the disposable income needed to fit in their new social class. The cost associated with purchasing the appropriate attire can also be a hinderance to first-generation students from working-class backgrounds. (Pifer & Riffle, 2018)

First-Generation Student Undergraduate Experiences and Support Programs

To better understand the experiences of first-generation graduate students, it is important to delineate what experiences first-generation students enter graduate school with. First-generation students' undergraduate experiences are not siloed from their experiences as graduate students. The challenges faced by first-generation students during their undergraduate coursework are likely to continue, and even compound, as they pursue graduate studies. Challenges such as finances, belongingness, and academic preparation can follow students from one pursuit to the next. At the same time, the students have also had a chance to apply their prior knowledge while learning new skills and tools to help them succeed. During their undergraduate work, students have had opportunities to connect with faculty, learn how to navigate higher education, and participate in programs to help them succeed. Students who have participated in first-generation programs, such as the McNair program, as undergraduate students can come into graduate school with a different set of knowledge and skills. This section of the

literature review discusses the experiences of first-generation undergraduate students and support programs offered to them.

A wide variety of federal, state, and institutional programs support first-generation undergraduate students. These programs help support academics and overall student experience for first-generation college students. While these programs do focus on undergraduate success, the inclusion of graduate preparation can make an impact on the graduate degree aspirations and completion of first-generation college students.

Supporting the academics of first-generation students is quick to come to mind when thinking about undergraduate support programs. First-generation students often have less access to rigorous high school courses and typically have lower standardized test scores and grade point averages. First-generation students may also have lower levels of confidence in their abilities. (Atherton, 2014) The overall lack of rigorous courses and lack of academic preparation also impacts the literacy preparedness of first-generation students (Wahleithner, 2020). Even when taking college preparatory classes, Wahleithner (2020) found that the first-generation students in his study were not prepared for the reading and writing demands of college.

The lack of academic preparation first-generation students face not only hinders their success in undergraduate work but can also compound when they enter graduate school making academic success more difficult. When first-generation students are given support to fill the gap in their academic preparedness, they can be more successful in their undergraduate studies and beyond.

The McNair program's focus is to "Increase the percentage of low-income, first-generation college students who successfully pursue postsecondary education opportunities" (HEA: TRIO, 2007). The McNair program is an influencing factor on the doctoral degree attainment of first-generation students by providing them with the knowledge and skills they need to be successful in graduate school (Gittens, 2014). With approximately 50 percent dropout rate (Lovitts & Nelson, 2000), the odds are against first-generation students who enroll in doctoral programs. Undergraduate student support programs can help combat the challenges first-generation students are likely to face in graduate school by providing programs to develop the knowledge, skills, and dispositions that will better prepare them for graduate school (Willison and Gibson, 2011)

Rural students have often experienced a closely-knit community as noted by McDonough, Gildersleeve, and Jarsky (2010). One of the issues facing the students will be leaving home and the community they know. There will be many adjustments for the students from the lifestyle they were raised with. For some students, this could be a difficult transition, possibly more difficult than the courses they are taking. The close-knit communities that provided support for them are gone.

Students who transfer from a two-year institution to a four-year institution sometimes experience transition issues related to the differences of cultures at the institutions. If a difference in culture of institutions can cause problems for rural students, changing institutions from undergraduate to graduate studies may again be disruptive. When universities are considering how to serve this population, thought should be given to students' needs in adjusting to the culture of their new institution and programs. (Byun et al, 2017)

Byun et al (2017) recommend that transition programming for undergraduate students consider students' family support, academic preparation and cultural discontinuities. These factors impact the enrollment and attainment of rural students and should not be excluded when constructing programing to help rural students succeed. Edmondson and Butler (2010) discussed the importance of including lessons and experiences in teacher education programs that focus on the unique problems and circumstances in rural areas. These recommendations were aimed at high school students who are transitioning to college, but these concepts can also be applied to undergraduate students who choose to pursue graduate education.

Even if first-generation students receive social and academic support in their undergraduate studies, they may still face financial challenges the prevent them from pursuing graduate education. Ortagus and Kramer (2020) examined the impact of a no-loan program for undergraduates and the impact the program had on the graduate school enrollment of first-generation students. This no loan program covered all the unmet financial need of the students through funds from the institution. They found that a no-loan program for first-generation undergraduate students increased the likelihood of graduate school enrollment between 25 and 65 percent. In contrast, Chen and Bahr (2020) found no significant effect on graduate school enrollment from undergraduate debt.

While there is a division among the impact of undergraduate debt on the enrollment in graduate school, financial issues during undergraduate work can go beyond the decision to enroll in graduate school. In a study with 101 commuter students who were first-generation college students, Almeida et al. (2019) found that only 9 students

had 5 or more faculty and staff members in their support network. The lack of a campus support network was due largely to the students' need to commute and work long hours to financially support their education. This lack of support network on campus can cause issues when students need to request recommendation letters for graduate school applications as well as leave them with a lack of mentorship that could help support them in both their undergraduate and graduate studies. When considering this lack of campus support networks with the findings of Ortagus and Kramer (2020), the case can be made that increased financial support for undergraduate first-generation students could benefit both their undergraduate and graduate experiences.

First-Generation Graduate Student Support Programs

First-generation graduate students are faced with many challenges and often lack the social and cultural capital necessary to successfully overcome these challenges. If students have both first-generation status and a rural background, it may only compound the challenges they are faced with during graduate school. In a 2007 study of the recruitment and retention of underrepresented graduate students, including first-generation students, Poock found that most of the institutions in the study did not have any staff members who were responsible for programming for this population of graduate students. Of the participants who did indicate there was programming for underrepresented students, such as orientation and mentoring, most felt that the existing programming was ineffective. Although programming for first-generation graduate students is not as robust as programming for undergraduates, several institutions across the country have developed programs that can serve as a model for other institutions.

The University of North Carolina Chapel Hill is one of the institutions to have a program for first-generation graduate students. As noted on their website (graddiversity.web.unc.edu/initiatives/1st-gen-grads), the focus of this program is to assist first-generation students in navigating academic culture and becoming a successful graduate student. Many of the activities included addressing issues of socialization, belongingness, and academic success that first-generation students often experience.

Duke University's Graduate School has recently implemented programing for first-generation graduate students called Duke F1RSTS (https://sites.duke.edu/dukef1rsts/). Duke F1RSTS offers resources including professorial and personal development, opportunities to mentor first-generation undergraduates, and an annual first-generation graduate student symposium. The annual symposium grew even larger when they partnered with the University of North Carolina at Chapel Hill to provide the opportunity to first-generation graduate students at both institutions.

Duke University also partnered with Boston University. Boston University's Newbury Center houses first-generation student supports. The Newbury Center has a section on their website dedicated to first-generation graduate students. This section contains resources, first-generation graduate student spotlights, and an archive of previous first-generation graduate student newsletters sent by the Newbury Center. (https://www.bu.edu/newbury-center/)

The University of Washington has also implemented a support program for first-generation graduate students. (grad.uw.edu/for-students-and-post-docs/core-programs/first-generation-graduate-students) This initiative also focuses on the issues faced by first-generation graduate students by helping foster a sense of belonging by

creating a community among first-generation graduate students as well as providing supportive programing for students. The program was featured in a news article in the Seattle Times sharing the story of the assistant director who is now in charge of the first-generation initiative and highlighting the goals of the program. In addition to the program for first-generation graduate students, there is also an introduction to graduate school course that is a self-guided online course for students to learn about what it looks like to be a graduate student.

The University of California, Los Angles has also implemented programs specifically targeting first-generation graduate and professional students (https://firsttogo.ucla.edu/graduate-students). Campus-wide first-generation initiatives include a graduate division, law school, and medical school. The initiatives include the First-Generation Graduate Student Council, First-Gen at UCLA David Geffen School of Medicine, 1st Generation Latinx, and the First-Generation Law Student Association. These graduate student focused programs provide opportunities such as mentorship, networking with other first-generation graduate and professional students, and professional development. They also serve as advocates for first-generation graduate and professional students as well as work to bring more visibility to the first-generation graduate students on campus.

Institutions with programs to serve first-generation undergraduate students assist students in areas like financial aid, course selection, tutoring, mentoring, and even graduate school preparations. These services could mean the difference between degree completion and dropping out. It could be argued that providing these types of services is not necessary for graduate students because one of the main objectives of graduate work,

especially doctoral programs, is to prepare the student to transition becoming an independent scholar (Lovitts, 2008).

Use of Existing Literature

The current literature on first-generation students, both undergraduate and graduate, provides a framework for the examination of how first-generation graduate students navigate graduate school including the application and funding process, family support, socialization, peer networks and faculty relationships. The existing literature on graduate students only begins to touch on the challenges faced by first-generation students and does not address the knowledge and skills that the students bring to the table. The use of both social and cultural capital as well as the cultural wealth model to guide the research protocol will help to include both challenges and advantages first-generation students may have. The data analysis will compare and contrast the results of this study to previous studies on first-generation graduate students. Data analysis will also critique the use of the deficit model, including social and cultural capital, used in previous educational research and apply the Community Cultural Wealth model to explore how the participants have navigated their graduate programs. By assessing the experience of the students, a more accurate account of the challenges, strengths, and needs of first-generation graduate students will be added to the existing body of literature as well as inform future higher education practice and policy.

CHAPTER 2: METHODS

Introduction

While the research on first-generation undergraduate students is extensive, limited literature exists about first-generation graduate students. For this reason, I chose a research design that will generate primary source data. This data was collected by conducting an exploratory study using semi-structured, qualitative interviews (Jacob and Furgerson, 2012; Maxwell, 2012; Swedberg, 2018) of first-generation doctoral students. An exploratory study allowed me to assess the ways that first-generation doctoral students navigate graduate school and add those findings to the existing literature base.

Research Question

This study aimed to look at how first-generation doctoral students navigate graduate school. This study explored how these students navigate not only their degree requirements but other academic and social aspects of graduate school as well. Within the graduate school experience, I focus on several areas: application and funding process, family support, socialization, peer networks and faculty relationships.

Research Site

The research site is a major research university in the southern United States. The institution will be referred to as Magnolia University in this study. According to publicly available data for the 2019-2020 academic year, Magnolia University enrolled approximately 18,000 undergraduate students with slightly over 17% of the enrolled undergraduates identified as first-generation students. Of the approximately 7,800

graduate students enrolled at Magnolia University with approximately 2,000 research/academic doctoral students. Of the doctoral students enrolled at the University, approximately 150 students were identified as first-generation students by the University's publicly available data.

The selected research site is a public research university with a wide array of graduate programs of study. While partially a logistical convenience selection for the researcher, the academic and professional breadth of graduate programs within the one campus also serves to provide programmatic diversity with institutional context consistency. Participants in the study were sampled from those first-generation doctoral students enrolled in programs across campus, excluding medical and law students. Students in medicine and law have much different programs of study and career paths than those in academic/research doctoral programs.

Pilot

This dissertation evolved from a project for a qualitative research methods course in the Spring of 2017 that continued into the Spring of 2018. I chose this topic for my course project after a flyer for a first-generation law student event piqued my interest. I have previously studied first-generation undergraduate students and continued to be interested in first-generation students. When I began my doctoral program in 2016, I had planned to continue studying first-generation undergraduate students from Appalachia. Seeing a flyer for first-generation law students led me to search for information on first-generation graduate students. Although I found limited research or programming, I was interested in continuing to explore the topic.

I began to develop a research proposal on first-generation graduate students as a course project in Field Studies in Education Institutions during the Spring of 2017. After continuing to explore the topic of first-generation students' experiences navigating graduate school throughout the remainder of 2017, I made the decision this would be my dissertation topic. I took the opportunity to expand the proposal into a pilot study during the Spring of 2018 in the Advanced Field Studies course.

For the pilot study, qualitative data collection methods were used. I chose to use qualitative data collection in order to hear the unique stories of first-generation graduate students that cannot be heard by collecting quantitative data. The most logical method was personal interviews using a semi-structured interview protocol. The use of personal interviews would allow me to ask questions based on the topics and themes I found in researching first-generation graduate students. The use of semi-structured personal interviews also allowed me to explore topics that were brought up by the participant. The interview protocol focused on five main areas: application and funding process, family support, socialization, peer networks, and faculty relationships. Using the interview protocol, I conducted personal interviews with five participants. Each interview lasted between 35-55 minutes. Participants were recruited for the pilot study by word of mouth through classmates, co-workers, and other members of my network on campus.

The interviews revealed several themes: application and funding process, academic preparedness and ability, socialization and social networks, family support, and motherhood in graduate school. Within these themes, participants faced gender specific issues. The themes that emerged from this pilot study informed the interview protocol for the dissertation study.

The pilot study also helped me add probing questions to my interview protocol. After analyzing the data, I had from the pilot interviews, I found I was missing information that I had expected to obtain such as where the participants were from, family information, and age. The themes around gender and parenting also led me to add questions about marital status, living arrangements, and children. Although these demographic questions could also be obtained by a survey of the participants, I chose to include these questions at the beginning of the final interview protocol to allow me to build trust and help the participant become more comfortable before arriving at more difficult questions (Jacob and Furgerson, 2012).

Participants

The research sampled the population of graduate students enrolled in doctoral programs at one large public research institution during the 2019-2020 academic year. Master's students were excluded from the study to reduce the analytic complexity introduced by the structural and expectation differences between master's and doctoral degree programs. While not every doctoral student is required to complete a master's degree before entering a doctoral program, those who have could reflect on those experiences as well as their experience navigating their doctoral program. The participants were also required to be enrolled in their current program for at least one semester. Excluding participants who were in the first semester of their program ensured that the participants had experienced campus and departmental life in ways they would not have earlier in their program.

International students were also excluded from this study. International students face additional challenges related to language and culture that the majority of their

American peers do not face. These challenges add additional complexity that would not have allowed for an adequate analysis in a small, in-depth sample of first-generation doctoral students.

The dissertation study aimed to collect a sample with 12-20 interviews. Sample size calculations are based on the work of Guest et al. (2006) who suggest that for studies focused on a particular topic, saturation is reached between 12-16 interviews. I completed a total of 19 interviews for the study.

Participants were recruited based on a non-random, purposive sampling method. Participant criteria were as follows: first-generation student, United States resident and graduate student status in doctoral program who attends the Institution and has completed at least one semester of their current doctoral program. Participants were recruited by contacting the leaders of graduate student organizations listed on the University's involvement website, and distribution of the invitation to participate to the associate deans of graduate studies and the directors of graduate studies, also found on the University's website, aided in the recruitment of study participants. The letter used to contact graduate student organizations, as well as associate deans, (Appendix A) asked the recipient of the email to share the study with their respective groups by sharing the email or printing the flyer attached to the email (Appendix B). Several graduate student organization leaders and associate deans responded to let me know they would share the information with their students or copied me on the email to their respective groups.

Asking graduate student organization leaders to share with their organizations led to one leader who was a first-generation student themselves volunteering to participate in

the interview. The remainder of the study volunteers were recruited from the study being shared with them by their associate deans.

My original recruitment plan also included printing flyers (Appendix B) to hang around the Magnolia University campus. Because the COVID-19 pandemic shut down campus in my first week of recruiting participants, flyers were not used in recruitment. I was only made aware of one flyer that was printed by a recipient of my email to share the study. In the initial contact made by the potential participants, they all shared with me the way they had heard about my study. No participants mentioned seeing a flyer on campus as the way they found out about my study.

Potential participants were given my email address to contact me for more information, questions, or to volunteer for the study. In response to my call for participants, I received 25 emails from potential participants. Four volunteers for the study did not meet the study's definition of first-generation graduate student since one or more of their parents or guardians held bachelor's degrees. Two volunteers did not show up for their interview time or respond to follow-up communication. The remaining 19 respondents represent my study participants.

Most of the participants in the study were female. Three of the four participants who were not eligible for the study were male participants. The participants ranged in age from 27 to 58 with the majority of the participants being in their late 20s to early 30s. The majority of the participants identified as growing up in a rural area. Many of the participants were also white and non-Hispanic with 2 participants identifying as Hispanic. Participants were asked to indicate if their major was considered STEM, also known as Science, Technology, Engineering, and Math, or non-STEM. Of the 19 participants, 12

identified their major as non-STEM and the remaining 7 identified their major as a STEM major. Most of the participants in the study were enrolled in their current program full-time with 15 indicating full-time status and four participants indicating part-time student status. Four of the 19 participants were parents. The participants were split equally in their marital status with 9 participants being married and 10 participants being single. The participant demographics can be found in Table 1.

Table 1

Pseudonym	Age	Gender	Childhood Home Location	Marital Status	Discipline Category	Children	Student Status	Ethnicity
Mary	58	Female	Rural	Single	Non-STEM	No	Part-Time	Non-Hispanic
Elizabeth	28	Female	Rural	Married	STEM	Yes	Full-Time	Non-Hispanic
Ashley	27	Female	Rural	Married	STEM	No	Part-Time	Non-Hispanic
Debbie	33	Female	Rural	Single	Non-STEM	No	Full-Time	Non-Hispanic
Jane	27	Female	Rural	Single	STEM	Yes	Full-Time	Non-Hispanic
Hannah	34	Female	Rural	Single	Non-STEM	No	Full-Time	Non-Hispanic
Jill	29	Female	Rural	Married	STEM	No	Full-Time	Non-Hispanic
Susan	44	Female	Rural	Married	Non-STEM	Yes	Full-Time	Non-Hispanic
Rick	26	Male	Rural	Single	Non-STEM	No	Full-Time	Hispanic
Amanda	27	Female	Rural	Single	Non-STEM	No	Full-Time	Non-Hispanic

Doug	34	Male	Rural	Married	Non-STEM	Yes	Full-Time	Non-Hispanic
Bob	25	Male	Suburban	Single	STEM	No	Full-Time	Non-Hispanic
Allison	36	Female	Rural	Single	Non-STEM	No	Full-Time	Non-Hispanic
Sally	52	Female	Suburban	Married	STEM	Yes	Full-Time	Non-Hispanic
Catilin	29	Female	Suburban	Single	Non-STEM	No	Full-Time	Hispanic
Emily	32	Female	Suburban	Married	STEM	No	Full-Time	Non-Hispanic
Lisa	38	Female	Rural	Married	Non-STEM	No	Part-Time	Non-Hispanic
Margo	37	Female	Rural	Married	Non-STEM	No	Part-Time	Non-Hispanic
Taylor	27	Female	Rural	Single	Non-STEM	No	Full-Time	Non-Hispanic

Type of Research

This study was designed as an exploratory study using qualitative personal interviews to examine how first-generation doctoral students have navigated graduate school. I came to this decision after first drafting a proposal that used grounded theory. Given the limited research that specifically focuses on first-generation students who pursue graduate education and existing theory, grounded theory design did not fit the goals of this study. This study was not intended to arrive at a theory-based explanation of the experiences of first-generation doctoral students. Rather, this study aimed to map the experiences of first-generation doctoral students descriptively.

Although exploratory research has many uses, one common use is to look at a topic that has not been examined before. An exploratory study is also used when there is a lack of knowledge about a particular topic. (Swedberg, 2018) With limited research on first-generation doctoral students, an exploratory study seemed appropriate for this dissertation.

To best meet the goals of this exploratory study to map the experiences of first-generation doctoral students, qualitative methods in the form of semi-structured personal interviews were used. While qualitative methods have many other uses, exploratory research is a strength of qualitative research methods (Maxwell, 2012). Although sociologists debate the best methods to be used in an exploratory design, an open-ended personal interview is one option (Swedberg, 2018). The use of semi-structured personal interviews allowed me to meet the goal of mapping the experiences of the participants in navigating graduate school by allowing for the exploration of unanticipated topics.

Research Methods

The data collection occurred in the form of one-time, open-ended, semi-structured personal interviews with the participants. Interviews ranged in length from approximately 1 hour to approximately 2 hours. Using a flexible, semi-structed protocol allowed me to explore comments that interviewees made about their experiences navigating graduate school that provided valuable information to the study. The protocol (Appendix C) had 13 main questions with additional probing questions where necessary to explore how students navigate not only their degree requirements but other academic and social aspects of graduate school as well. The pilot study allowed me to assess what questions worked and which did not, as well as to assess question topics to be included. The pilot

study also helped to determine the question order for the interview protocol. Including questions about the participants' living situation, marital status, and children were all a direct result of the assessment of questions after the pilot study.

The first question in the protocol is intended to collect general information about the participant as well as establish rapport with the interviewer. Beginning the interview in this way allowed the interviewee to become comfortable and build trust (Jacob and Furgerson, 2012). The next 11 questions and probes are based on the current literature on first-generation students and graduate student success. The questions focus on the application and funding process, family support, socialization, peer networks and faculty relationships. Questions progressed from easier to answer questions to the more difficult questions to allow the interviewee to build confidence and trust. (Jacob and Furgerson, 2012). The use of probes with each question allowed the interviewer to stay on track as well as leave room to explore unexpected topics that arise in the interview (Creswell, 2007). The last question in the protocol asked if the participant was willing to share the study with their peers, if needed. Although all the participants indicated they were willing to share the study, snowball recruitment methods were not required to reach the necessary number of interviews.

The interview protocol included topics around the navigation of graduate school for the participant. These topics included support networks, navigation of applications, funding, and other program requirements, and challenges and successes. The protocol also allowed for exploration of any student support offered by the students' college or department. This exploration will also focus on the topic of navigating graduate school and focus on the application and funding process as well as faculty relationships. The

interviews took place from mid-March to the end of April in the Spring of 2020. This timing allowed students to have experienced at least one semester of their program of study prior to the onset of the Covid-19 pandemic. Some participants had completed several semesters of doctoral study.

The Spring of 2020, when the interviews took place, was the start of the global COVID-19 pandemic. The Spring semester began as normal at Magnolia University but like most of the United States, COVID-19 began to spread in March 2020. A call for study participants was sent out during the first week of March 2020, just as COVID-19 cases started to spread more rapidly in the United States. One in-person interview was conducted the following week. The next week was Magnolia University's Spring break. The University did not return to campus after Spring break for the reminder of the Spring 2020 semester and the state was placed on a lockdown via Zoom video chats. Apart from one in-person interview and one virtual interview, these interviews took place during the lockdown associated with COVID-19. At the time of these interviews, it was thought the COVID-19 pandemic would only last a short time and we would return to our normal activities.

IRB Review

This study was submitted to the University of Kentucky Institutional Review Board for approval as an expedited review as the study involved no greater than "minimal risk." Approval for the research study was granted by the Institutional Review Board.

Consent and Privacy Considerations

The original data collection plan stated that interviews may take place in person or via Zoom or similar systems to allow for flexibility of physical location of participants and the researcher. However, due to the lockdowns associated with the COVID-19 pandemic, only one interview was held in person. The remaining interviews were conducted via Zoom.

The in-person interview was conducted on the institution campus in a private room and used an audio recorder to record the interviews. Room reservations for the private room was made through the institution's reservation system. Virtual interviews were conducted via Zoom while the researcher was in their own home with a secure internet connection. Zoom interviews were audio recorded.

Informed consent was obtained for all participants. Prior to the interview, participants were emailed a copy of the consent document (Appendix D) for them to review, sign, and return to me via email as most interviews took place over Zoom due to the COVID-19 pandemic. For the participant interview that took place in-person, the participant was given a copy of the informed consent document for them to review and sign before the interview. The participant was also given a copy for them to take. All participants were given the opportunity to ask any questions about the consent form or study before we began.

I took multiple steps to protect the privacy of the participants. For all interviews, the recording file was immediately moved to a file on an external hard drive that was password-protected. The external hard drive housed all interview recordings which were

coded with participant numbers as the file name. The files contaminating any identifiable information, such as the digital consent forms and the participant number document were stored on a password-protected computer separate from the audio recording files. Any paper documents were stored in a locked file cabinet. Participants numbers remained the identifier of all audio recordings when recordings were transferred to the Cloud-based software programs, Descript and Dedoose, for transcription and coding respectively.

Each participant was given a pseudonym that would be used in the dissertation. During the writing of the dissertation, all identifiable information was removed from the data.

Data Analysis

Audio recordings of interviews were transcribed then coded for themes. Transcription was done using Descript, an online service that generates transcripts, and the researcher reviewed, edited, and validated the transcriptions.

Following a framework analysis (Yorkshire & the Humber 2009), I reviewed and coded the transcripts. Transcripts were reviewed for the repetition of key words and phrases to create themes. Word repetition will be analyzed by identifying the unique words used by participants and then used to create themes. (Ryan and Bernard, 2005) The data was then coded based on experiences of the participants in navigating graduate school. Coding initially focused on five main areas: application to graduate school and funding process, family support, socialization, peer networks, and faculty relationships. Additional codes were based on salient topics presented by the interviewees including support networks, parenting related issues, mental health, and navigating challenges.

Using both an inductive and a deductive approach to coding the data allowed for flexibility in the data analysis. Although there was a mix of inductive and deductive coding, like other experiential studies, inductive coding remained prominent. (Braun and Clarke, 2012) Even within the 5 focus areas applied to code the data, there were themes that were driven by the data collected. Coding was done using a computer software, Dedoose. After the coding of the data was complete, the themes were charted to allow for easier reading across the data set (Yorkshire & the Humber 2009). Dedoose, the computer software used for coding, allowed for multiple charts and tables to be made to more easily analyze the data.

The study was designed to include analysis of sub-groups within the data set of first-generation students, such as female and male, STEM and Non-STEM, parents and participants without children, by comparing and contrasting the sub-groups. Compare and contrast includes looking at the text and answering how is this text similar and different from the previously read text (Ryan and Bernard, 2005). The participant demographics (Table 1) did not allow for comparison of the expected sub-groups.

In addition to a thematic analysis of the data, I chose to include participant portraits in the dissertation. After completing an early draft of the Data Analysis, it was clear that the significant unique qualities of individual stories of the participants were lost in the thematic analysis alone. Using portraiture in conjunction with thematic analysis provides a deeper understanding of the data and allows for the unique experiences of the individual participants to be highlighted (Rodríguez-Dorans & Jacobs, 2020). Chapter 3 will provide readers with the narrative portraits of three participants that will show both

the unique experiences of participants as well as the common threads that are weaved throughout their stories.

Researcher Positionality

My interest in first-generation students is very personal. My own experiences as a first-generation student from rural Appalachia have without a doubt shaped me as both a researcher and a practitioner in both the higher education and K-12 settings. These identities and experiences have given me a passion for education and student success that guide the research I have conducted. While these experiences have driven my research agenda, they can also present limitations and biases.

One preconception to consider is my expectation that interviewees would have a similar experience to my own. As I have explored literature on first-generation students, first-generation graduate students, and graduate students in general, I have found myself identifying with many of the experiences in the existing literature. While literature exploration was helpful in the development of my research question and interview protocol, I took caution not to assume all my participants will have the same experience. One way I addressed this issue was to explore literature that did not focus on students with similar backgrounds to my own. Articles about minority graduate student experiences such as Howard (2017) and the gender disparities in STEM such as Xu (2008) were helpful to see a wider range of experiences.

Other personal identities that may impact the way I am seen by participants or how I interpret the experiences of the participants are white, female, heterosexual and in the age range of late 20s to early 30s. Some of the personal characteristics allowed me to

develop rapport with the participants while other characteristics may have distanced me from participants. Those participants who also identify with one or more of my own characteristics are participants with whom I may be better able to build rapport with. While rapport building may be less difficult, it was important I do not assume that participants with similar characteristics had similar experiences to my own.

Another commonality I share with all participants is I am a first-generation doctoral student at the same institution. and at the time of the interviews, I was a graduate teaching assistant at the University. In my role as a student and teaching assistant over the past 7 years, I have also built a network on the University campus. The wide network I have built has been important to me, but it also led to me personally knowing two participants and having common acquaintances with others. Although the participants and I have the shared experience of being first-generation doctoral students at a major research institution, it was important to me to be aware that each participant's story is unique, and each person has their own identities and past experiences that have influenced their experience as a first-generation doctoral student at Magnolia University.

I took several steps to reduce the impact of personal biases on the study. In addition to being aware of potential biases, using caution in my research, and expanding my understanding of first-generation graduate students from diverse backgrounds, my dissertation was extensively reviewed by my dissertation chair. When coding the dissertation, I used data-driven codes to allow me to follow the stories laid out by the participants. My original research proposal included the use of external coders; however, the timing of my research study and the COVID-19 pandemic prevented the use of any external coders. Through the extensive review of my dissertation at all stages, my

dissertation chair served as an external expert in place of external coders. The study was also reviewed by all members of the dissertation committee for comments and feedback before final submission. The review of the study by committee members to provide constructive feedback and suggestions for improvement will also reduce the impact of bias on the research (Turner, 2010).

Limitations

This study explores doctoral students in one university campus. Without multiple sites represented, it is not a complete look at first-generation doctoral students in the United States. The data collected will add to the literature on first-generation graduate students and begin important discussions about how to best support this population, generalizations outside of the research site to the general population are not supported.

Several limitations stem from the single research site of this study. One limitation is the institution is a predominantly white institution, also known as a PWI. Although this study aimed to collect a sample that was repetitive of the first-generation doctoral students enrolled at Magnolia University, the resulting sample was predominantly white. One female and one male participant identified as Hispanic/Latinx. The race and ethnicity of the participants in this study did not allow for comparisons of the experiences of students of color and white students. The PWI serving as the single research site also did not allow for the examination of first-generation graduate students who attend Historically Black Colleges and Universities or other minority serving institutions.

Another limitation related to institution is the ability to examine how both institutional and departmental culture has played a role in the success of first-generation

graduate students. As Austin (2002) noted, faculty relationships can vary by department. Different institutions, as well as different departments, vary significantly in their cultures, which can make it easier or more difficult for graduate students to develop working relationships with faculty members and peers. This study is limited to one institution and the sample size did not provide adequate data to examine variance in departmental cultures.

Other limitations are related to the sub-groups of the participants. The participants were also predominantly female with only three of the 19 participants identifying as male. Most of the sample also identified as being from a rural area. There was also not adequate representation from any one disciple to draw conclusions about how discipline impacts the experience of first-generation graduate students. Due to the sample not representing all sub-groups of first-generation doctoral students, these results may not be applicable to all first-generation doctoral students.

Another limitation of this sample is these participants can be considered successful graduate students as they have all completed a master's degree and are making suitable progress towards their doctoral degrees with many participants being in the later stages of their programs. At the time of the interviews, no participant discussed any intent to leave their current program. Although these participants have all faced their own unique set of challenges, no situation has prevented them from continuing to pursue graduate work.

A limitation unrelated to the research site or the sample is my own biases. While I discussed above the steps I took to reduce bias, I would be remiss if I did not include my personal biases as a limitation. My personal biases come from my own experience as a

first-generation graduate student as well as my experience as a practitioner in both the K-12 setting and higher education. Although the goal of this study was to recruit a diverse sample, the resulting study sample had strong similar demographics to me. Because of these demographic similarities, my experiences as a first-generation graduate student aligned more with my participants' experiences than I expected.

Summary

This qualitative, exploratory study aimed to explore how first-generation students have navigated their graduate programs. The use of an exploratory study design with a semi-structured qualitative interview protocol allowed the researcher to explore how the participants have navigated their graduate school programs.

CHAPTER 3: PARTICIPANT PORTRAITS

Introduction

Throughout the participant interviews, many themes emerged related to the challenges participants faced as well as how they have navigated the challenges. These themes will be discussed in Chapter 4, yet each individual's story is also unique. Thematic analysis looks at the commonalities across the participants but can lose the unique stories of the individual participants. The use of portraiture in conjunction with thematic analysis enhances understanding of the data. (Rodríguez-Dorans & Jacobs, 2020) The following participant portraits illustrate the ways common themes intertwine with individual experience. These portraits also show how the intersectionality of the participants' identities have influenced their experiences navigating graduate school.

Doug

Doug began his interview by telling me his personal and educational background. Doug is 35 years old and at the time of the interview, he was preparing to defend his doctoral dissertation in philosophy.

Doug grew up in a rural, New England town. The small town was the poorest town in the state. Doug's father's family were tradesmen in various trades such as masonry, plumbing and carpentry. His father, uncle, and grandfather all worked together in their own machine shop. Doug's father's family also farmed and worked with draft horses. His father's family instilled a work ethic in Doug that remains with him today.

While his father's family deeply valued hard work in the form of manual labor, his mother's side of the family valued education more. Neither of Doug's parents had a

bachelor's degree but he found support in his maternal grandmother's husband, who was a high school social studies teacher. Doug's mother's family had several other teachers who were also an early influence on his educational decisions. Doug had the choice between two high schools, one a technical school that prepared students to enter the workforce with a trade skill and one a comprehensive high school that focused more on college preparation. Doug chose to attend the "regular" high school with the intention of going to college.

The cost of attending college was one of the first obstacles Doug faced in his higher education journey. Doug described his parents as "house poor" because they bought a house they could not afford which often left his family economically unstable. His parents' income did not meet the requirements that would have allowed him to qualify for financial aid. Doug's family faced additional financial strains as he was entering college due to health issues his mother developed during that time.

Some of Doug's financial concerns about attending college were mitigated when he was admitted to the honor's program at a small regional comprehensive school. Admission to the honor's program came with paid tuition, leaving room and board expenses for Doug and his family. Doug recalled visiting his grandparents' house one day the summer before entering college and his step-grandfather giving his mother a check. He later found out that check was to pay for Doug's room and board for his freshman year. It was important to his grandparents that Doug had a traditional first-year experience and they were willing to take on the cost associated with that.

After his freshman year, Doug worked as a resident assistant in the dormitories. This work provided Doug with room and board while his honors program scholarship

continued to pay his tuition. However, the scholarship only covered the Fall and Spring tuition so when Doug needed to take summer classes, he took out a loan. This time Doug's paternal grandparents assisted him financially by co-signing the loan since they were the only ones with the credit score to do so.

In addition to financial challenges, Doug also faced academic challenges. Doug majored in Math and minored in Philosophy. Doug did well in his math classes but struggled with the philosophy courses. He undiagnosed learning or communication disorder caused this struggle. Doug and his parents decided not to pursue the diagnoses of any disorders out of fear it would hinder Doug's academic progress. Looking back, he felt the approach to his possible disorders was "backwards" and counter intuitive. Doug's parents' lack of understanding of academic accommodations available to Doug in college likely led to his belief that diagnoses would be a hinderance rather than a benefit.

Although Doug's major was in Math, he chose to complete his undergraduate honor's thesis in Philosophy. With the support of his advisor, Doug applied to eight graduate programs in Philosophy. Unfortunately, Doug did not get accepted to any of the programs. Instead, he received standard rejection letters without any personal follow-up by the programs. Doug capitalized on his experiences as a resident assistant and pursued positions in residence life. Doug was offered a position at a small institution in another New England state.

Doug's experiences in residence life brought him to the realization that he could not continue the work he was doing without understanding and addressing the larger social implications in higher education. Doug chose to pursue a second bachelor's degree online in Philosophy. Doug completed the degree in less than two years and then applied

again to doctoral programs in Philosophy. This round of applications also ended in disappointment with no acceptance to any of the programs. However, one of the institutions, that happened to be in the same town as the institution Doug worked at, did admit him to their master's program. After being rejected from the doctoral program but before being admitted to the master's program, Doug had applied and been accepted into a master's program in organization and management at the institution where he worked. Doug ultimately chose to work on both degrees at the same time. Doug's program at the institution where he worked was paid for, but he needed to take out loans for the Philosophy program at the other institution.

Although it was a difficult decision to make, the risks paid off for Doug. He ended up having a supportive, helpful advisor in this Philosophy program. Much like the support he had received from his undergraduate advisor, Doug was encouraged to pursue applying to doctoral programs again, which he did after completing both master's degrees. This time, Doug was accepted to two doctoral programs.

In previous years, Doug had "blanket applied" to programs without intentionality. This round, with the support of his advisor, Doug chose programs based on the faculty and the specializations of the department. Without familial knowledge of the graduate application process, Doug did not have the support to understand the best methods in applying to graduate school until his faculty advisor helped him navigate the process. With the advice of his faculty advisor Doug intentionally applied to schools based on their faculty and specializations which helped him be admitted to the doctoral programs he chose. Doug was not offered funding at one institution, but he was offered funding at Magnolia University. Funding was an important factor in deciding what institution Doug

would attend. Doug and his now wife chose to pack up and move from New England to the South for Doug to attend Magnolia University. As Doug has navigated his doctoral program, he has continued to face challenges including familial obligations, parental obligations, lack of familial support, financial issues, and a lack of knowledge of unwritten rules of graduate school.

When Doug was preparing to complete his qualifying exams, his wife gave birth to their first child who was five at the time of this interview. Doug had one other child who was turning one in the month of the interview. When asked about his life outside of his studies, Doug responded that his first thought was “hinderance.” His obligations to his wife and children often interfere with his devotion to his studies. He often needed to miss department talks in the evening so he could go home to take care of his children or communicating with his faculty members and peers can be more difficult because his experiences are more family related than theirs. He often felt the need to code-switch so he can talk to his faculty members in a way that feels acceptable and expected.

Doug also felt like he was expected to be fully devoted to his studies by his department and committee. Because he had a family and obligations to care for them, Doug felt that his department and committee did not take him seriously. He often had difficulty communicating with his committee members. Doug felt that the difficulties communicating with his faculty members and the biases against him for having a family were a major factor in the delays in his degree progression. The internal and external conflicts caused by Doug’s schoolwork and family life have been a constant source of stress for Doug.

For Doug, the internal and external conflicts have been difficult for him and his wife to navigate. Doug discussed that even though starting a family as you approach qualifying exams is not ideal, he did not want his wife to wait any longer than they already had. He and his wife had discussed having children and he felt that his marriage was "waiting on him" to move on to the next step. While most of his family has a 20-year gap between generations, he and his children will have a 30-year gap. As Doug discussed these challenges, you could hear the hurt in his voice. Later in the interview, Doug revealed that he and his wife had been in counseling several times and were currently in couples counseling. Doug had also attended counseling sessions on his own to help cope with the mental health challenges he has faced.

In addition to the conflicts between family and school, Doug has also faced challenges with the finances of graduate school. Like many first-generation students, Doug's financial challenges started when he began his undergraduate studies. Doug took on extra duties at Magnolia and he also found other part-time teaching positions at local community colleges. For a short period of time, Doug also waited tables to help provide more financial support to his growing family. While he was able to make ends meet, the additional stress of working multiple jobs and long hours took a toll on his personal and professional like including his wellbeing, his relationship with his wife, and the time it took for him to complete his degree.

Doug has continued to find ways to overcome his challenges. One strategy has been by "a lot of trial and error." When something did not work, Doug would adjust and try to improve. The work ethic instilled in Doug from his father was clear throughout Doug's education. Another key to overcoming the challenges he faced, particularly in his

doctoral work, was the lived experience of being a higher education professional for so many years before beginning graduate work. This experience was particularly helpful in navigating higher education structures and understanding how universities functioned.

Academia can easily be a siloed environment where it is difficult to make connections between departments. Doug has taken an interdisciplinary approach to his schooling, starting in undergrad, that has also been important in helping him overcome challenges. Doug described a semester in his undergraduate work where he had math classes and one philosophy class as one of the greatest semesters of his life. While he worked on his master's of philosophy, Doug continued this interdisciplinary approach by critiquing the work of Kant through a philosophy of mathematics and set theory of mathematics.

This interdisciplinary approach enabled Doug to make connections with people with different theoretical perspectives and backgrounds. As he began his doctoral coursework, Doug counited the interdisciplinary approach. One of the draws to Magnolia University was its teaching and learning certificate program. From the beginning of his coursework, Doug took philosophy and teaching courses. It was also in this certificate program that Doug found an important mentor for his doctoral studies. He also noted that through the certificate program, he had found "pockets of community" that helped him figure out what he needed to do in his doctoral program.

Beyond the mentorship Doug found in the teaching and learning certificate, the relationships he built at his undergraduate and master's institutions, as well as the institution he worked at, have continued to play a role in his doctoral program. These mentors served as his references for the applications to doctoral programs. He continued

to stay in contact with these mentors for support and advice. His relationship with his undergraduate advisor helped him learn about a publishing opportunity that led to part of his dissertation work being published in an anthology.

As we wrap up our conversation, Doug reflected on his doctoral work. With his dissertation defense soon, he can see the light at the end of the tunnel. However, he thought of the things he had lost, both literally and figuratively. He lost his grandmother and grandfather while in graduate school and still felt a sense of guilt that schoolwork took time away from them. He also had concerns about his future as he had not received any interview requests. This situation is only complicated by the COVID-19 pandemic that began earlier in the year. At the end of our interview, he thanked me for my research and volunteered to "interview a thousand times". With little research on first-generation graduate students, Doug felt passionately that this research was important.

Debbie

As we began our interview, Debbie and I acknowledged how nice it was to see each other's faces over the video chat. With the recent stay-at-home orders due to the COVID-19 pandemic, campus had been closed and only essential business, like grocery stores, remained open. Debbie then began into telling me about herself. Debbie is a single 33-year-old female from a small rural mid-western farming town. Debbie was valedictorian of her graduating class of 47 students. Debbie had little college preparation in her high school with only one Advance Placement course offered, Biology, where she was one of two students enrolled. Debbie was also active in sports throughout high school.

Debbie chose to attend Magnolia University for her undergraduate work because her older cousins at attended the University. She stayed at Magnolia to complete her Master's of Social Work, MSW, before she moved to the eastern part of the state to become a practicing clinician. Debbie began her doctoral program while she worked as a full-time clinician at the University hospital after returning from working the eastern part of the state. Debbie recently left her full-time job to be a full-time student. At the time of our interview, Debbie had finished her qualifying exam and was preparing to propose her dissertation.

Debbie recalled that she had always been strong academically, even though she felt behind in some areas because of the lack of preparation in high school. Debbie needed a master's degree to become a practicing clinician which had led her to complete an MSW. While working, Debbie became a licensed clinical social worker, LCSW, but she felt like something was still missing. She knew that she did not want to become a supervisor or manager in her field but she "wanted something more". Debbie had the encouragement of her then boyfriend, who has remained a friend, to pursue doctoral work.

Debbie discovered that pursing a doctoral degree in social work was an option while she was a practicing clinician at the University hospital. Before working in an academic hospital setting, Debbie had not known anyone who was a doctor who was not a medical doctor. She was unaware of anyone in her hometown who had an academic doctoral degree. When someone joked about her being "Dr. Debbie" her dad replied, "You're going to medical school?"

Debbie's parents' lack of understanding of a doctoral degree did not change their support of her pursuit. She explained that her dad does not know what her degree completion entails, but he supports her fully. He will ask "Is it time for me to come yet?" -- to Magnolia to watch Debbie graduate. He sends her inspirational quotes via social media and text messages. Debbie admitted her dad is not an emotional man, but he told her once that he was so proud of her when she completed her master's degree, he cried.

Like many other first-generation students, finances were one of the obstacles Debbie has faced. She said that when she started her master's work, she did not know you could get funding for graduate school and did not have anyone in her life to tell her about funding options. She held a work study job during her master's but that was not enough to cover her tuition and living expenses. She covered the rest with loans. Even when applying for a doctoral program, Debbie admits that she still did not know of funding options besides taking out student loans. Because Debbie was a practicing clinician at the Magnolia University hospital at the time she applied to the doctoral program, she was able to cover her living expenses and had some of her doctoral tuition covered through the employee tuition program. She also continued to take out loans to cover expenses during her doctoral work that were not covered by her employment at the University hospital.

Throughout Debbie's higher education journey, financial issues have been a source of stress. Debbie recalled her senior year of undergraduate work when she had no residual financial aid coming to cover her rent. It just so happened that she was in a collision with another car in a fast-food restaurant parking lot that ended up providing her with money that she then used to pay her rent instead of fixing her car. Debbie has been

fortunate to have some financial support from her parents. She continues to stay on her parents' cell phone plan and they pay her bill. They will also send her money occasionally or buy her items she needs.

Before beginning doctoral work, Debbie was concerned about balancing a full-time clinician job with coursework of a graduate program. Debbie took the initiative to reach out to the director of graduate studies to discuss her interest in the program and her concerns. He offered for her to sit in on a class to sample the program. During the class, she met two students who were friendly and supportive. One of them also worked full time and encouraged Debbie that she could balance the course load with her job. Talking to these students is when she first learned about post-baccalaureate options to enroll in courses as a way to test the waters of balancing her commitments. She recalled the excitement and passion she felt in that first post-baccalaureate class that led her to apply to the full program.

Although Debbie was excited about her doctoral work, the program has not been without its challenges. Graduate work can be an isolating experience for any student, but Debbie found a particular disconnect from her department. Not only was Debbie a full-time practitioner, but she also studies an area of social work that is not the focus of most of the faculty in the department. After she began her program, one faculty member was hired who specializes in Debbie's area of research. At the beginning of the program when Debbie was working long hours, she was not able to do participate in activities and programs that her peers participated in. Debbie was also part of a small cohort with only two other students. While the cohort model can be an important source of support for graduate students, such a small cohort combined with the other challenges Debbie was

facing made her miss the community typically built in a cohort. After she left her full-time job to become a full-time student, Debbie felt a need for a community in her program, so she started a student organization. Unfortunately, due to the COVID-19 outbreak, their first meeting was cancelled.

While Debbie has felt isolation at many points in her doctoral program, she notes that peers have played an important role in her navigation of graduate school. One strategy Debbie has used to navigate graduate school is to connect with members of the cohorts ahead of her. These peers have knowledge of the system and the unspoken rules of graduate school.

Debbie connected with a peer from the rural part of the state who is also a first-generation student. They have bonded over that commonality and support each other. They have taught each other rules of the "political game" to successfully navigate graduate school. They also provide each other information about upcoming events, such as conferences. She notes a feeling of "snobbishness" from her peers who are from academic families.

In addition to asking her peers for help, Debbie has not shied away from asking faculty questions. Debbie looked for people she felt were supportive and would ask questions of them. Through this method, Debbie was able to find a faculty member who has become a mentor for her. In addition to providing general guidance and support, Debbie's faculty mentor has also played a large role in her transition from full-time employee to full-time student by providing a research assistantship for Debbie. Debbie admits she still needs other sources of income to support herself, including teaching other

courses at other institutions, but the assistantship pays her tuition and provides a small living stipend.

In addition to relationships in her academic department, Debbie developed strong relationships with her supervisors and coworkers in her clinical work, along with a strong professional network. These relationships have provided a sorce of support for Debbie during her doctoral work. Through her professional network she connected to another institution to teach courses outside of her assistantship at Magnolia. Debbie has also stayed in contact with a mentor from a mentorship program in her professional network. This mentor has provided support for Debbie throughout her career and now her doctoral program. They meet monthly and connect in-person at conferences. Debbie's former supervisor is a support for research related questions.

As our conversation turned from support networks to graduate school preparation, Debbie described the challenges she has faced and the ways she has overcome them. She noted she has sacrificed seeing her family as often as she would like. Even when she does go home, Debbie feels the dynamic has changed. When she is home, she is not always fully present because of the stress of school looming over her. Debbie also feels like others see her in a different, less favorable light because of her career and educational decisions. While Debbie is proud of her accomplishments, she does not like the way it feels to be judge in such a way.

In addition to these intrapersonal and interpersonal conflicts, Debbie has also felt challenges related to academic preparation. Debbie had noted early in our conversation that her high school offered little college preparation. She also felt that her undergraduate

work did not prepare her for graduate work. She described that she always feels behind academically, especially in her writing.

Debbie has used a variety of knowledge and skills to help her address the challenges she has faced. Debbie has not had a fear of emailing “fancy people”, like the director of graduate studies, to ask questions. She also feels that her “Midwestern friendliness” and her extroverted personality have been helpful in building relationships in graduate school. Continuing to build her network has been helpful to open doors for Debbie. Debbie also noted the role her professional experiences have played in her doctoral program. Debbie compared navigating the professional hierarchy to navigating the academic hierarchy which has proved to be helpful. She also took a moment to recognize the privileges she has had as a white female from a lower middle-class family that prevented some adversities.

Debbie feels that she has not overcome anything but just gotten through. Debbie is not afraid to fail and says she is willing to say something did not go well then learn from that experience. Debbie also describes her persistence and determination. She says she continues to look for opportunities by doing things like going to conferences even if she is not presenting so she can learn and network. She describes how she often “shows up and gets the work done” and says yes to projects she’s asked to be a part of. Debbie’s stick-with-it attitude that she describes is heavily related to the values her parents instilled in her. While this has served her well, always saying yes to projects has also overextended Debbie which adds additional stress.

Emily

Emily took a break in her work at the Magnolia University experimental dairy farm to discuss her experiences in graduate school. Emily is a 32-year-old married female. She is a third-year doctoral student in the animal and food science department where she focuses on dairy science. At the time of the interview, Emily was finishing her last semester of coursework and preparing to take her qualifying exam over the summer.

Emily is originally from Southern California, in the suburbs of Los Angles. At her suburban high school, Emily was given the opportunity to take Advance Placement courses and graduate with a 4.6 GPA. Emily began her post-secondary education at a junior college because of tight competition for admission and scholarships in California. Emily was transferring out of junior college during the financial crisis of 2008-2009 and had a difficult time finding programs of interest that were accepting transfer students. She came to Magnolia University to complete her bachelor's degree in animal science after the University was one of the few that was accepting transfer students in her program.

Before coming back top Magnolia University to pursue a PhD, Emily completed her master's in Dairy Science at an upper Mid-western state university. Emily had made a connection with a new professor in the Dairy Science department at the Mid-western university and was able to secure a full assistantship to provide tuition payment and a living stipend. While attending a conference, Emily met a professor from Magnolia who was looking for a graduate assistant. Emily was able to interview for the position and return to Magnolia University with a full assistantship with summer funding to pay for her doctoral program.

Funding has been a critical part of Emily's graduate education. Emily's mother is a stay-at-home mom and her father is a project manager for an air conditioning company. While her parents were emotionally supportive, Emily has not received financial support from her parents since she was in high school. Although Emily had assistantships for master's and doctoral programs, the funding was not enough to cover all her living expenses.

While Emily completed her master's degree, she also worked full-time at Starbuck's where she eventually became a shift supervisor. In order to make ends meet, Emily would calculate how many hours a week she would need to work and start her day before dawn to make sure she could get enough hours in at work and be able to complete her schoolwork. Emily's long hours at the coffee shop prevented her from taking out student loans for her master's degree. This was especially important to Emily as she had a large amount of debt from paying out-of-state tuition for two years of undergraduate work at Magnolia. Although working did prevent additional student loan debt, Emily says it took a toll on her social relationships.

Emily also needed additional financial support during her doctoral program. This financial support comes from her wife, who is employed full-time. Emily's assistantship stipend covered their rent and her wife's salary covered the rest of their expenses. Her wife's financial support allowed Emily to focus her time on her program and making social connections with her peers instead of working additional hours outside of the university.

Mentorship has played a key role in Emily's graduate work. Emily describes graduate school as "the weirdest, most foreign thing of my life". She noted that none of

her family or friends had attended college let alone graduate school. Emily adds that even though her mom loves and supports her, that her mother doesn't know what graduate school is like. Emily felt that the professors who supported and mentored her have been crucial for her success in navigating graduate school.

During her master's program, Emily's advisor left the university. Emily recalls that at the time, it was a horrible situation, but it turned out to be to her benefit. Emily's new advisor was a more senior professor who "knew the ropes" of academia. Her new advisor played an important role in Emily applying to doctoral programs by providing support and encouragement.

Emily also established a strong mentoring relationship with her doctoral advisor at Magnolia University. This relationship provided support as well as opportunities to travel and network. The cost of conference travel can be difficult for all graduate students but for a first-generation student like Emily who does not have the financial support of her family, the costs associated with conferences can be prohibitive. Emily's advisor has provided funding for her to travel to Norway and supported her in applying for a grant for her to travel to Switzerland. Her advisors support and her efforts to look for funding have allowed Emily to travel more than her peers. When attending national and international conferences, Emily's advisor introduces her to anyone he networks with and helps her grow her own network.

Emily has also worked to build relationships with other faculty and staff in her department. "The chair of my department is amazing" Emily says. She adds that the administrative staff have been helpful and supportive as well. They have helped her

navigate the logistics of the program like scheduling coursework and examinations that she did not know how to navigate on her own.

In addition to the mentors she had in academia, Emily's network of support also included her former supervisor at Starbuck's who she has remained in contact with. The Starbuck's store manager held a master's in marketing and helped guide Emily through the whole application process as she applied to doctoral programs. This is a steep contrast the experience Emily had in applying to master's programs where she says the whole process was a mystery. Emily had emailed various faculty and staff on the departments' websites to ask questions during the process, but she had no real guidance from anyone.

Peer relationships have also been a key source of support for Emily during her graduate work, especially her doctoral program. Emily was not able to make as strong a peer network during her master's due to her outside work demands but she has made up for that during her doctoral program and intentionally created a strong support network of mentors and peers. Part of the peer network Emily has built during her doctoral program has come from the department's graduate student organization.

During her doctoral program, Emily also had the support of her wife. In addition to the financial support she received from her wife, Emily says her wife has been her rock during her doctoral program. Emily admitted she does not think she could have done her doctoral program without her wife.

When it came to navigating the coursework in her master's program, Emily recalls that it was a lot harder than she thought it would be. Emily's master's coursework required her to take courses that were based in the medical school. Emily recalls she "just

scrapped by" in the courses. In addition to the challenging coursework, she also had a difficult time navigating the relationships with her classmates in the coursework housed in the medical school. When describing her classmates, Emily said "These med school guys, like no offense, but some of them seem to have a lot of money. I know they all complain about not having money, but it seemed like they had a lot of support in general." She added that her classmates did not have outside obligations like work or families and all they ever had to do was go to class. With a lack of peer support in her coursework, Emily leaned on her advisor for support and help. While navigating her master's coursework was difficult, Emily said the experiences she had helped her prepare for her doctoral coursework.

Although Emily felt that the coursework in her doctoral program was easier to navigate, she felt the program itself was more difficult. Emily's master's program was more laid out for her and straightforward: complete coursework, collect data, submit a thesis. There was also more support for Emily during the process of her master's program. During her doctoral program, she felt as though she had to "fight to find help."

Beyond challenges at school, Emily also faced challenges at home. Emily says a huge challenge at home as been being able to relate to her family and for her family to understand what she is going through. Emily was proud of the grant she had received to travel to Switzerland and was looking forward to the experience. However, due to the COVID-19 pandemic, Emily's trip was canceled. The grant award had been a major accomplishment and Emily was devastated her trip was canceled. Emily's family was like "So what? Big deal your trip was canceled." and did not understand the significance of the award Emily had received. This lack of understanding coupled with the judgement

from her family of her being “more important than her family” makes Emily downplay her accomplishments and limit her discussions about her doctoral work. Emily has not tried to solve these issues with her family but instead relies on her strong network of peers and mentors to support her when her family cannot.

To overcome the challenges she has faced, Emily has used past experiences as well knowledge and skills she had acquired throughout her life. The experience Emily felt had helped her the most was a communication and leadership course she participated in during her master’s program. Emily sought out this program and applied for a scholarship to pay for the course. During this course, Emily learned how to understand and read people and navigate interpersonal communication.

Emily was able to put the lessons she learned during the communication and leadership course to practice as a shift supervisor at Starbuck’s. Emily also learned skills like how to navigate when she was having a hard time and not to go at a task alone while she was a shift supervisor. Another pivotal experience in Emily’s life was participating in undergraduate research when she attended Magnolia University. Before participating in undergraduate research, Emily did not know about graduate school or PhDs. This research experience during her undergraduate work made Emily realize she wanted to pursue graduate school.

As our interview ended, Emily talked about her dreams for the future. She hopes to become a professor at an R1 university where she can do research and teaching. She talked about how excited she gets to help people learn and understand science as well as being able to mentor students. When asked if she had any final thoughts to add, Emily

thanked me for the research I was doing. “Nobody thinks of us. So, it's really exciting that like someone's even taking the time.”

Conclusion

Doug, Debbie, and Emily all have stories that are unique to their personal experiences in navigating graduate school. Doug shared his story of resilience in the face of rejection and how he has navigated his doctoral program while facing many familial conflicts with his parents as well as wife and children. Debbie’s experiences in graduate school were split into two distinct time frames: when she was working as a full-time practitioner and after she left her job to become a full-time student. Each time period had its own challenges that Debbie navigated by building her network and connect with mentors. After acquiring large amounts of debt to attend Magnolia University as an out-of-state undergraduate, Emily worked long hours at Starbucks to make ends meet and avoid loans during her master’s program. Emily built on her past experiences, including those as a shift supervisor at Starbucks, to help her navigate the challenges she faced during her graduate work.

The participants’ experiences navigating graduate school have been influenced by their intersecting identities. For example, in addition to his identity as a first-generation student from a rural, low-income family, Doug also holds the identities of male, husband, and father. These intersecting identities have caused Doug additional challenges as he has navigated graduate school. Other salient identities held by the participants, including partner/spouse, parent, gender, and rurality, have all played a role in the experiences of navigating graduate school.

Each participant has shared their own unique story; however, multiple common threads are woven throughout these three stories as well as the stories of the other 16 participants. Participants' experiences can be divided into two categories: challenges and navigation. Challenges included lack of preparation as early as high school, familial challenges, isolation, difficulty navigating the written and hidden curriculum, inadequate funding, and mental health issues. Participants also used a variety of knowledge, skills, and strengths to navigate their graduate programs including a willingness to ask questions, work ethic, seeking resources and support, and participation in undergraduate preparation programs. While prior research has focused on the deficits of first-generation students, this study will apply community capital concepts from Yosso (2005) by focusing on the knowledge, skills and abilities of the participants. In the following chapter, we will discuss the depth of the common themes in all the participants' interviews.

CHAPTER 4: DATA ANALYSIS

Introduction

Using a theoretical framework that includes social, cultural, and community capital, this study examines how first-generation doctoral students have navigated graduate school. Theories of social and cultural capital have a history of being used in educational research but often focus on the deficits when applied to first-generation students. By incorporating community capital theory, this study will also examine the strengths of first-generation doctoral students and how they have used those strengths to navigate graduate school.

While each participant has a unique story, as demonstrated by the previous chapter, many common themes emerged throughout the 19 participant interviews. These themes can be grouped into two main categories: challenges and navigation.

Participants discussed challenges starting as early as high school with a lack of preparation for college and limited advanced coursework. Familial challenges, both with their parents, siblings, and extended family as well as their own spouse and children were salient for 17 of the 19 participants. These familial challenges created both internal and external conflicts for the participants. Participants also discussed the isolation they felt during their graduate studies. In addition to not feeling prepared for graduate studies, participants had difficulty navigating the written and hidden curriculum of graduate school. These challenges along with the other demands of graduate school also created mental health challenges for a majority of participants.

Inside of the challenges participants faced, one theme stood out from the others: funding and finances. Participants had varying levels of funding from multiple sources, but the funding was often not adequate to meet all their needs. A lack of adequate funding created many additional challenges including the need to work additional jobs, less time spent on their studies, increased feelings of isolation, and difficulty covering the residual costs of graduate school. The challenges related to funding and finances were even more difficult for those participants who were also parents.

Although the participants faced numerous challenges, they also used a variety of skills and strengths to navigate the difficulties faced. Because they did not have family members to answer questions, the participants were left on their own to figure out how to navigate graduate school. The willingness to ask questions was key for several of the participants. Work ethic was discussed by many of the participants as a reason they have overcome challenges that have presented themselves. This work ethic was described as coming from their families and prior experiences. Some participants had the opportunity to participate in programs during their undergraduate work that also helped them navigate the graduate school experience. Continuing to seek out resources was also important for the participants to navigate graduate school. In seeking resources, some participants turned to graduate student organizations and took leadership roles in those organizations.

Just as funding and finances stood out in the challenges, support stood out as a major theme in navigation. Participants not only sought out resources but also support from faculty, staff, coworkers, and peers. While most of the participants noted they did have family support in some form, their support often did not go beyond being a cheerleader for the participants. Participants who had a partner indicated that their partner

was a major source of support for them during their graduate work. Participants noted how important mentorship and positive faculty relationships were as early as undergraduate. Some participants continued to communicate with mentors from their undergraduate work as they navigated graduate school. Peers also played a major role in providing social-emotional support for the participants. Participants who held jobs during or before entering graduate school also found support in their co-workers.

In the following chapter, these challenges and navigation of the participants will be presented and discussed.

Challenges

It is understandable that any graduate student would face challenges. First-generation students who pursue graduate work face additional, compounding challenges that their peers are less likely to face. Participants in this study noted challenges ranging from lack college of preparation in high school to family obligations. Cataldi, Bennett, and Chen (2018) also found that first-generation graduate students face challenges that begin before entering higher education and continue thought out their degree programs.

When discussing their educational experiences and preparedness for graduate school, one-third of participants noted their high schools lacked preparation for college. Lack of college preparation in high school included lack of Advance Placement (AP) courses, college or guidance counselors, and general college preparation such as writing, time management, and study skills. A lack of more rigorous courses, lower standardized test scores and grade point averages of first-generation students were all noted by

Atherton (2014). The lack of preparation in high school also impacts first-generation students' literacy preparedness for college courses (Wahleithner, 2020).

Of the six participants who noted they felt a lack of college preparation in high school, five of the participants identified as growing up and attending school in rural areas. The study sample was overwhelmingly rural with 15 of the 19 participants indicating they were from a rural area. As McDonough, Gildersleeve, and Jarsky (2010) noted, one of the three areas of concern for rural (undergraduate) students is academic preparation.

Doug described his college preparation at a rural high school and questioned the access he had to resources because of the location of the school. Elizabeth and Taylor both described a lack of Advance Placement courses offered in their rural high schools. "We had one AP class that was offered or offered, and it was in biology and there were two people in it, and I was one of them" was the experience Elizabeth had with AP courses. Taylor also described the scarcity of Advanced Placement courses in school and how that has become even more dire since she graduated. When Taylor was in high school, the AP course offerings included art, biology, and English. Since she graduated, the small, rural, Southern high school has stopped offering art and biology as AP courses.

The challenges for first-generation students pursuing graduate degrees start before they even leave high school. As many of the participants noted, they did not feel adequately prepared by their high school education. Lack of advanced placement courses and other college preparatory courses leaves first-generation students without the same knowledge and skills as their peers. As the students complete their undergraduate work, they may or may not get the appropriate help to improve their knowledge and skills.

Without parents who can support them in their academics, they rely on schools to provide them with this information. When they enter graduate school, they will likely be expected to know certain things including how to properly cite their sources and how to write academic papers. If this information has not been given to them at school, they will continue to be disadvantaged in their academics.

Beyond challenges inside of academia, first-generation students also face additional challenges related to their families. Family related challenges were mentioned by 17 of the 19 participants and included conflicting values, family obligations, and a lack of familial understanding.

Of the familial challenges noted by the participants, lack of familial understanding was the most frequently referenced with 16 participants citing this challenge. As many of the authors in Dews and Law (1995) discussed, they had the support, and even the expectation, to obtain an undergraduate degree but that support did not continue during their graduate work. When discussing their families' lack of understanding of graduate school, participants listed their families not understanding why they went to graduate school, the stress related to graduate work, what graduate work includes especially in the post-coursework phase of their programs, or what their careers will look like after finishing their graduate programs.

Amanda, while discussing her family's understanding of graduate school said "Like most parents of graduate students, they have no idea what I do. They just smile and they're like, she's smart." Amanda felt a lack of familial understanding was something all graduate students experienced while Doug explained how his working-class family felt about his graduate studies much differently.

“I don't think my parents really understand what graduate school is. They think I'm a teacher. I think that's more indicative of that kind of thing. Studenthood is kind of a stereotyped window into academic labor. I think for my family, they see the kind of work that like a philosophy professor does or even philosophy and you can talk about that. I'll say my mom to this day does not let it go that I didn't pursue mathematics.

Like you're not doing something. My father would tell me, eloquently put to me, you're mentally masturbating. You're not actually producing anything in the world. Right? Like, you're not working for someone. You're not making money. You're not buying a new TV. You're not buying a new truck. You’re not doing any of that stuff. You're not consuming enough.”

Amanda makes a point that is valid that most parents of graduate students may not understand graduate school, especially if they have not been themselves. However, their peers who have parents who attended undergraduate studies and completed a bachelor’s degree will have some frame of reference to the demands and process of graduate school by their interacting with graduate teaching assistants and professors. Graduate students who have parents who did not attend college would have no frame of reference for understanding the challenges and complexities of graduate work.

In addition to the lack of familial understanding, seven participants noted they had family obligations and six participants cited conflicting values. As some of the authors in *This Fine Place So Far From Home: Voices of Working Class Academics* (Dews and Law, 1995) described, their values and ideals have changed from the values and ideals their families hold. Martin (1995) felt such a change in his values and ideals that he could only discuss ““…family, food, and basketball but not politics or religion…” on his visits

home. Patton (2012) felt as if she was being told by her family that she was no longer like them. Participants family obligations included caring for ill parents as well as providing financial support to their families. The conflicting values mentioned by participants included their families' expectation of them to provide physical and financial support as well as the conflicts the value of education, academic careers, and alienation when they return home.

Elizabeth captured her father's feelings about her graduate studies and career in this statement: "But he would have been, I guess part of it sometimes I struggle with, he probably would have been prouder of me if I stayed home and worked at Walmart." Taylor also felt a conflicting value of education and her career when sharing the news of her acceptance to the graduate program. "When I got into a PhD program, she cried and not because she was happy, but because she thinks I'm wasting my life."

These social-emotional conflicts and familial obligations are joined by financial obligations to support their families, whether their parents at home or their own partner and children. These financial challenges fall in line with the experiences of many of the authors of Dews and Law (1995) who also faced obligations to support their families financially as well as a lack of understanding of why their children would leave a stable income job to return to school to make low wages.

When asked if she received any financial support from her family, Taylor responded "I actually support them financially." Hannah expressed similar sentiments in response to the question by saying "If anything, I've supported my mom a little bit financially." Rick also discussed the financial obligations he has to his parents.

“It's still tough because I'm able to get by but anytime something happens with my family or anytime something unexpected comes up. That's just, it's kind of like a hole. And being the one who is out here in graduate school and kind of the one who's kind of made those jumps within my family, I think a lot is expected of me to too. I've always kind of tried to do my best to help family. You know, sometimes I don't, I don't get to do stuff or I think things that I see others do on a day-to-day basis as like taken for granted, like part of life, like grabbing breakfast and lunch and dinner, those are things that I don't always have access to or have the ability to take advantage of. And I can't really tell my family that because for me it's making sure that they're okay that they can eat.”

While some participants faced family financial obligations to their parents, others held responsibility for their partners and children. Because Lisa, a 38-year-old married student, is the sole income earner in her home, she faced restrictions when considering a doctoral program.

> “When my husband and I talked about me doing a PhD, it had to be somewhere that I could do full time employment and had to carry our health insurance. And then just do it part time.”

Beyond the financial family obligations, participants with children indicated conflicting obligations and parenting related issues. Out of 19 participants, 5 participants were parents. Of the 5 participants, 4 of them indicated challenges related to parenting. The only participant who is a parent that did not indicate challenges related to parenting is Sally, a 52-year-old participant who has one stepdaughter who is a 21-year-old college student that does not live with her.

Challenges the parents listed included childcare and time conflicts. Doug felt as if his family obligations were in ways a hinderance to his studies and he would often miss

department events in the evenings because of his need to go home and be with his children. Elizabeth expressed guilt when discussing the time conflicts of being a parent and a doctoral student.

> "I feel like it takes a lot of time away from her and I feel really guilty for that. And I feel like having her, it takes away a lot of times that my peers have to engage with their research, their dissertation.

Three of the parents expressed concerns about childcare with two of them being concerned about the cost with the third participant living close enough to family members who ae willing to help. Elizabeth said, "So my stipend goes to childcare." while Jane has had to take out loans during her doctoral program for childcare. This was a drastic change from her master's program where they covered all her childcare expenses.

> "They [the daycare] would directly bill the school. They didn't even bill me which was great. So then coming here [to Magnolia University], the state itself is more stringent on how you can get approved. And then less lenient on how much they'll cover. So instead of covering your child's childcare [completely], they'll cover a max of like one $105, which my daughter's childcare is $232 a week.
>
> If you didn't qualify, and I went through waves of when I did and did not qualify for the help through the state, whatever the state wouldn't pay, whether I did or did not qualify (master's institution) picked up the rest."

The result of the lack of childcare coverage during her doctoral program has been a financial challenge for Jane is the primary reason for the loans she takes out. Even with the financial support of her partner, they still cannot cover the cost of childcare with Jane's assistantship salary. Even when Jane did receive state assistance for childcare during her doctoral program, they paid $70 of the total $232 a week.

Wrapped inside of the participants' discussion of their families' lack of understanding, conflicts, and obligations are feelings of isolation. Doug, a 34-year-old

married male student with children approaching defense of his dissertation, reflected on his familial obligations and conflicts, and the resulting burdens.

> "In the theme of big obligations, it's been it's virtually impossible to navigate those without dealing with the psychological and emotional burdens of isolation and distancing from the people around me because I can't be everywhere."

For Doug, the sense of isolation and distance from those around him extends from his wife and children to his family who live a great distance away from him. This isolation and distance can be both physical and emotional for the participants, as Allison describes in her reflection.

> "It feels kind of isolating sometimes for sure. It makes you feel apart from your from your family in a lot of weird ways. And you also, you know, there's like coming to from [conservative Southern state]. Then one: coming from the South, two: coming from the rural South, and three: coming from like a working-class family."

When asked about what they wish they would have known before entering graduate school, both Margo and Debbie wished they would have known about the amount of isolation involved in graduate work. Margo felt that even though you can check in with your mentors, you're still on your own once you move into the candidacy stage of a doctoral program.

> "Maybe how lonely of a world it is once you get to PhD candidate stage. I mean you feel like you're on your own a lot. And even though you can check in with your mentors and stuff, it's still just you figuring it out."

Debbie also described the isolation of PhD candidacy in this way: "Yeah, for this dissertation, now I'm back on my island again. Before, we had classes together at least but now we don't have that."

Amanda and Rick both described primarily only seeing those they worked with. Amanda, who is in a STEM field, describes feeling isolated with only those in her lab

around her: "No. I mean, I feel pretty isolated. You have your boss and have your fellow students that are in my lab." Rick, who is a student in a non-STEM field, describes only seeing his officemates in his discussion: "It felt almost like, because as I mentioned, I didn't hang out outside of my office. It was just wake up, go to the office, go home, wake up."

When discussing isolation, Debbie mentioned the isolation she faced because of her need to work full time to support herself financially. "It's been a rough one. I mean, it's been very lonely just because I've been working all the time, so I haven't been doing the stuff that the other students have been doing."

While isolation can be a challenge to all graduate students, first-generation graduate students face compounding challenges, as Debbie has described. The students are faced with challenges that all graduate students face, such as isolation, but they are also facing issues with increased isolation because they are not only physically isolated from their families but also face social-emotional isolation due to the lack of understanding and conflicting values. As described by Christopher (1995), first-generation academics never fully move-in to their new academic homes and feel like a "misfit in both worlds". If first-generation students face isolation from their peers, as Amanda and Rick described above, they do not have their families to turn to for support.

While the participants all faced a different set of familial challenges, family plays a large role for first-generation graduate students. Whether it is obligations to care for parents or children, financial obligations to family, or a lack of familial support, these situations only further compound the challenges first-generation students face. These

challenges can manifest as internal and external conflicts, mental health challenges, and an increased lack of belonging and isolation.

First-generation graduate students also face additional feelings of isolation and issues with belonging related to the challenges they face because of their first-generation status. Feelings of a lack of belonging and isolation can come from financial challenges including not having extra money to spend on social events or needing to work extra jobs to make ends meet. These financial challenges not only take away opportunities for first-generation graduate students to socialize and network with their peers but may also increase feelings of otherness and lack of belonging.

Another salient challenge, mentioned by 10 of the 19 participants, was mental health including the access to appropriate mental health resources. Mental health is a topic on college campuses and is a challenge that can impact all graduate students. When discussing mental health issues during the interview, Jane asked "Does the sheer mention of mental health issues from all the students that you were talking to? Cause I'm sure you've come a lot." Issues about access to mental health resources included stigma, confidentiality, and physical location.

Caitilin and Taylor both had concerns about their peers from their programs being involved in internships at the University counseling center. Caitilin expressed these concerns as issues of confidentiality.

> "In my program, some of the students work at the counseling center which creates a whole issue in itself. So I don't even feel like it's a resource for me in particular, because yeah there's confidentiality, but they still know I'm there."

Another issue around confidentiality, as well as stigma, about accessing mental health resources on campus is a concern of seeing students the participants either teach or

work with in an advisor or mentorship role. Hannah expressed concern that the graduate students who are in the University town are unfairly expected to use the campus mental health services.

> "Also, just like even if you're in [Magnolia University town] and you go to the counseling center or the health center as a grad student the chances of running into a student are extremely high. Faculty members don't have to go to the student clinic. So that is challenging, and I think prevent people from utilizing those services also."

Four participants were all concerned about the access to mental health resources that graduate students have at the University. Jane said of the resources available: "I think there needs to be more work on student mental health. Especially focusing on graduate students." Allison added to that sentiment:

> "I definitely think that like seriously expanded mental health, um, mental health, um, coverage and services. Like there's no reason why graduate students, especially for especially first gen grad students, shouldn't be adding like constant individualized mental health care."

Amanda felt that the current resources that were offered at the University were more suited for undergraduate students.

> "I mean, I might be biased, but for graduate students, we're at a different level than the undergraduate students. We're going through different things. So perhaps we should be put into a category all by ourselves. But the process itself, I'm not a huge fan of it in general."

Hannah, who is finished collecting her field data overseas and is no longer physically at the University, expressed the issue of access to mental health for graduate students who are not located at the University.

> "In terms of the university level I think mental health care, relating to I think what's available at Magnolia is fantastic. Unfortunately, it's only available to, people are physically in town , and also it's not grad student specific."

Ashley related her mental health needs to the isolation she had experienced in her doctoral program: “I think it probably would have been helpful for me to get some sort of counseling early on about the isolation.” She added that “Then realizing that that is normal is also really helpful. I think I could have had a much healthier mental health starting out if I had just really utilized some of the counseling services.”

Mental health issues can affect any graduate student and are a growing concern (Evans, Bira, Gastelum, Weiss, & Vanderford, 2018). However, as Allison noted, first-generation students may be more likely to need mental health support. The increased stress and isolation from a lack of familial understanding and financial challenges can have a negative impact on their mental health. Litson, Blanley, and Feldon (2021) also noted that students from historically marginalized groups in the STEM field tend to struggle more with mental health than their peers. Rick also gave an example of his family’s lack of discussions about mental health that could be a barrier for other first-generation students.

> “I know a lot of people suffer from that and they struggle mentally. I don't know what people may be different in their families, but I know like growing up for me, that wasn't something that people would talk about, like mental health and things like that.”

In their discussion of first-generation undergraduate student mental health, House, Neal, and Kolb (2020) note these students face additional emotional distress than their peers due to increased challenges. From the participants’ discussions of their challenges, they have experienced many of the same challenges as the undergraduate students in House, Neal, and Kolb’s discussion. While there are similarities between the challenges that could be cause for first-generation graduate students to have more need for mental health support, as Allison noted, there has been no research on the topic to date.

An additional set of challenges noted by the participants involved the graduate school process. Catilin entered graduate school with little understanding of what to expect:

> "You know, I didn't know what to expect. I didn't know how the courses were going to be or how they were different from undergraduate courses. I didn't know what the expectations were. I didn't know."

Catilin and Taylor both expressed that they did not even know who they should be asking about the questions they had.

Allison related her lack of understanding of the graduate school process to a lack of orientation: "And when I came to UK I had like an orientation for an hour on a Tuesday and then classes started Wednesday and they were like, good luck." Debbie also expressed a desire for an explanation of the graduate school process.

> "It would have been helpful if somebody would have just talked to us about what to expect because every discipline, I think, is a little different. And what it looks like to get your districts like to get your PhD, like a dissertation process looks different. Just the effort and getting there looks a little different. What you have to do looks a little different. So I think each discipline should have their own orientation to what to expect over the next four years, you know?"

Frustrated with the lack of orientation, Amanda took it upon herself to co-chair a new orientation in her college. "I didn't, we didn't have one at Magnolia either. Actually, we had our first [disciplinary college] graduate orientation this past year. I know because I helped co-chair it."

Even before being accepted to their programs, participants faced challenges and uncertainties. Catilin discussed her experiences applying for graduate programs.

> "I didn't know what I was doing too. When I was applying for my PhD, I was just kinda like, uh, what? What should I do? Do I contact somebody in the department? Like should that be a professor? Should that be a graduate student?

> Like, how's that work? Should I go to campus to visit? Should I not have that work? What are other people doing? Am I supposed to know somebody? I just kinda took a shot at it. I didn't really know what I was doing."

While these concerns and challenges about the graduate school process could be experienced by all students, Hannah explains why she things first-generation students may have more difficulty than their peers.

> "Like, what?! I think that maybe relates to the disconnect of faculty and students as often, like. And even more so for first-gen, because I think most faculty have a academic background, at least in our current time period. Um, so like this disconnect of like not being able to understand that something might be difficult because it's so, it comes so easy to them or it's so naturally. And realizing that like grad students haven't done any of these things before. And having more real support cause there's all this fake, I mean, it's not fake. It's real, but it's like, it's not this like watching a webinar or going on, like, that's not this, that doesn't count to me. Or like going to a training session. Uh, like, yeah."

When first-generation students are admitted to graduate school, challenges related to navigating the written and hidden curriculum of graduate school present themselves. Depending on the institution and department within the institution, there are varying levels of orientations including but not limited to university wide orientations, department level orientation, handbooks, and orientation courses. First-generation graduate students also lack a family support network with the knowledge of graduate school, or higher education in general, to help them navigate their academics. Without adequate orientation available to all students or familial understanding and support, first-generation students are left to figure out how to navigate graduate on their own.

Funding and Finances

When discussing the various challenges they faced, participants frequently brought up funding and finances. Some participants were funded by assistantships while others relied on other sources of funding. Regardless of their source of primary funding, nearly all the

participants did not have adequate funding for their graduate programs. A lack of funding also caused other financial and academic challenges that hindered the participants. The challenges related to funding and finances were even more difficult for participants who had children.

Funding is an important part of deciding to attend graduate school as well as successful completion of graduate work (Larivière, 2013). For some of the participants, challenges with funding started from the knowledge that funding for graduate school existed. As Holley and Gardner (2012) noted, participants had a lack of knowledge about graduate school funding and assistantships. Not all students have the same access to support or services when it comes to finding funding for graduate school (Forbes, Schlesselman-Tarango, and Keeran, 2017). While discussing her funding for graduate school, Debbie said “I didn't know that you could get funding.” Allison did get funding but did not understand what that meant.

> "When I did get my funding letter from UK, I didn't really understand what it meant. Like I thought that when I got accepted, when they sent me my letter, I thought it meant that I was like guaranteed funding for X number of years [although that was not the case].”

During discussion of funding, the participants discussed funding for all graduate studies. For most of the participants, this included funding for a master’s degree as well as a doctoral degree. During the course of their graduate studies all 19 participants had some level of funding through assistantships or their employer. This funding was varied and many of the participants needed to rely on other sources of funding including additional work, partner financial support, parental financial support, and student loans.

Assistantships are a common type of funding for graduate students that often provide tuition payment and a stipend. Of the 19 participants, 15 had an assistantship during their graduate work. There are two primary types of assistantships: university funded and privately funded. Four participants had private funding and 14 had university funding at some point in their graduate studies with three of the participants having both types. Private funding for these participants occurred during their doctoral programs.

Participants who received private funding where all in STEM related fields. The funding sources were both public grants and private research funds. Two of the participants were parents and two were not. Amanda, who is single without children, indicated her PhD funding was much better than her master's degree because of the private, corporate source or funding. "For my PhD, I'm fully funded. I have a full stipend, so I don't take any student loans anymore. Thank you, Jesus."

Jill, a married female student without children who was defending her dissertation soon after our interview, had grant funding for both her master's degree and doctoral degree. The funding for her doctorate has provided tuition, living stipend, as well as covered the costs of her research and summer funding. She needed little financial support. Her family did cover the cost of her cell phone until she got married but that is not her responsibility. Her husband does provide some financial support, but she indicated she would have been able to support herself during her doctorate.

> "Let's say I didn't get married while I was in grad school, I think I might've stayed here [in a one-bedroom apartment]. I was able to swing it by myself that first year, just on my stipend alone. I do a lot more fun things now with his income than I did was just my graduate school stipend. But it never was like, "Oh, I'm down to my last $5!"."

Jill and Amanda's stories are the only ones that did not include more reliance on additional sources of funding. The other two students who did have private funding are also parents. Both Jane and Elizabeth face financial issues with their stipends and caring for their children even with the financial support of their partners. For the other participants, there are a variety of other challenges faced and outside sources of funding needed due to the limited support their stipends provide.

All of the ten participants who indicated they had worked additional jobs, both University sponsored and outside the University, were on departmental or university sponsored assistantships. These jobs ranged from working an overload teaching or research position at the university that was approved to waitressing or teaching at other universities without approval. It is important to note that at this institution graduate assistants are not permitted to work outside of their assistantships with departmental and graduate school approval. Even with approval, they should not work more than an additional 8 hours per week. This classist system adds additional financial stress to students who already have limited financial resources (Holley and Gardener, 2012).

Taylor works 20-30 hours a week at a job that is not approved by the university. During the first year of her doctoral work, Taylor made $12,000 a year in her assistantship that did not provide summer funding. Taylor has since then acquired a new assistantship that pays more, $16,000, but it also does not provide summer funding. Taylor was facing a difficult situation during our conversation because the extra work she does is a necessity, but she doesn't know if she can continue the hours with her program requirements.

> "I work for the Coalition so I'm going to be working full-time for the Coalition and honestly, that's a big part of why I work during the school year is just so I can have something I know I have for sure over the summer, but I'm going to have to quit. It it's too much. It's killing me. I've got to quit. But I usually work for that old job over the summer. I'm going to try to do private academic coaching, but we'll see how that goes."

Like Jill, Emily has also had a different experience in her doctoral program. Her master's program was not funded, and she relied on her own work to pay for school and her necessities.

> "For me, navigating paying, it was a hundred percent this is how many hours a week you have to work in order to be able to continue going to classes, buy your books, blah, blah, blah. So I was just chronically tired. I opened [International coffee shop chain] a lot. Pretty much four days a week, I would get up at four in the morning and finish a shift before any of the grad students would even show up."

While Emily was able to make ends meet working her job at Starbucks, it left little time for socializing or building networking relationships.

Another source of funding for participants was their employer. For some participants, this may have only been for part of their graduate studies and for others, it has been the case for the full time. While having their tuition paid by their employer, mostly the University, the participants did not need support but they would have fees or overages to pay. Regardless of the time frame of their employer support, all six students were part-time students during the time they were working full-time.

For participants with a live-in partner or spouse, they were often a source of financial support. While Jill noted her husband's support allowed them to do more fun things and it was not necessary except to meet income requirements for their apartment, others relied on their partners' income to make up for the short falls from their funding.

Elizabeth noted the importance of her husband's financial support: "If I were on my own and I were not married, I would be really, really stressed" For Emily, her wife's support during her doctoral program has made a significant difference in her financial situation compared to her master's degree.

> "Basically, my wife and I made the agreement that she would work to where we could like, not obviously like go to The Bahamas or anything like that, but like we're to a point where we weren't like starving for food. Cause as a master's student I had financial hardship. I went hungry sometimes. That's not the case this time around like at all. So, her support is pretty much why it's financially able to not work on the side."

Even with funding that pays tuition and a living stipend, some participants found it necessary to take out student loans to help them make up the short falls in their income. When asked if she had student loans from graduate school, Caitilin said "I do because I couldn't afford to live my second year. I wasn't getting paid enough." Amanda has been thankful to not have loans in her doctoral program due to her full, adequate funding but her situation looked much different during her master's program.

> "In the master's program, you could either be on half stipend or full stipend. Most of the time they brought students in on half stipend until they prove themselves to be able to be put on full stipend. I was always on half stipend. This is why I didn't get along with one of those teachers because it felt like I should be put on full stipend. So I only got like, I don't know, maybe $300 every two weeks and half of my tuition was paid. So, I had to cover the rest of it. And, of course, I took out a shit ton of student loans to try to get me through that time, which is where all of my debt lies."

Issues around funding can be faced by all graduate students; however, as the participants have noted, they did not have the financial support of their families that others may have had. This finding is in line with Marquard (2018) who found that working class students lacked the financial support of their parents and faced increased financial challenges as a result of this lack of financial support. Six participants noted they had some sort of

financial support from their parents, but this support was minimal. The participants who did receive family financial support noted their parents paid for things like cell phones, car insurance, and for a few, their parents would occasionally give them money for other things like groceries or gas. The majority of participants' parents worked jobs that would fall into working class. While not all first-generation students are working-class or low income, the lack of familial financial support is more likely to be faced by first-generation students.

Financial challenges facing first-generation graduate students start with the application process. The cost of sending transcripts, taking entrance exams, and application fees creates a barrier for first-generation students to access graduate education. The costly application process could limit the number of programs a potential graduate applies to or prohibit them from applying at all.

A lack of transparency about funding graduate school is also a barrier to first-generation students pursuing graduate education. As Larivière (2013) noted, funding is an important factor in deciding to attend graduate school. Some of the participants in the study did not even know about funding opportunities such as assistantships. The graduate school funding application process varies by institution and can be difficult to navigate. Lack of information about funding causes first-generation students to seek more loans than they would if they had funding or chose not to attend graduate school because of the cost. Gardner (2013) also noted the lack of understanding of the graduate school funding process and the increased stress financial concerns can have on first-generation students.

After applying and being accepted to a graduate program, the financial challenges only continue for first-generation graduate students. As the participants in this study have

shown, there are a number of financial challenges that face first-generation graduate students. Even if first-generation students have funding, there are unmet financial needs that cause additional stress for the students. First-generation students are more likely to rely on their own resources and take out additional loans than their peers (Hoffer et al., 2003). These additional financial stressors are not present for their peers who have familial financial support.

All of the financial challenges faced by first-generation graduate students can create a compounding effect on their challenges with isolation and belonging. Students may need to work additional jobs to help meet financial needs which takes away time they could be making social connections. The need to work additional jobs takes time away from other relevant experiences that can put first-generation students at a disadvantage on the job market (Hirudayariaj, 2018) and increase time to degree (Diaz, 2021). They may also be limited in participating in events such as conferences and social events because of the costs associated with those activities. These financial related challenges with belonging and isolation can have an impact on the overall success of the student (Ostrove et al., 2011).

Navigating Challenges

First-generation students enter graduate school with an existing bank of knowledge and experiences. While these students may face challenges their continuing-generation peers do not, they also have a unique approach to navigating graduate school. Just as the participants faced a variety of challenges, they also used a variety of strategies, knowledge, skills, and life experiences to overcome those challenges. Building support networks and finding sources of financial support were both important to the participants'

persistence in their respective graduate programs. Beyond these social-emotional and financial supports, participants relied on their personal strengths and previous experiences to navigate their graduate programs.

In the current literature on first-generation students, both undergraduate and graduate, there is a primary focus on the challenges faced by the students and what they are lacking. However, these participants all discussed strengths they used to overcome challenges that would be assets to their graduate programs as well as potential employers. Many participants in a study done by Holly and Gardner (2012) also saw the assets they brought to the table as first-generation students.

Without a familial understanding of the demands and expectations in graduate school, first-generation students are left to their own devices to navigate graduate school. For these participants, their willingness to ask questions as well as the use of trial and error were useful in overcoming challenges they faced during their graduate work.

The willingness to ask questions started from before submitting applications to graduate school for some participants. Before applying to programs, Emily and Amanda emailed professors in the departments they were interested in. Taylor had a more targeted approach by emailing a professor, who is now her advisor, after seeing helpful videos and information about graduate school on his website. After Rick was accepted to a graduate program, he chose to email the contact at the University who had sent him the acceptance letter to ask questions about deadlines he needed to meet to attend.

In addition to a willingness to ask questions, some of the participants noted that they overcame challenges by trial and error. The participants who described using trial

and error would typically try something, evaluate what worked or did not work, then adjust their strategies accordingly. The willingness to try things that may or may not work shows the participants' adaptability and open-mindedness that many employers would find as desirable traits in their employees. These traits, as well as the willingness to ask questions, both lend themselves well to designing and carrying out research projects.

Another strength that participants discussed to overcome challenges in graduate school is work ethic. Seven participants, all rural, identified work ethic as a way they have overcome challenges they have faced. Many of the seven participants credited their family background for their work ethic. Doug discussed how his father's side of the family had a farming background and did "hard labor" where he was encouraged to work hard and learn practical skills. Jill also comes from a farming family, and she felt that her work ethic could be attributed to her family and the farm. Ashley noted that her father was an example of hard work, and her family is responsible for her work ethic. Debbie and Rick had familial expectations to have a job from a young age which they felt had instilled a work ethic in them.

Definitions of work ethic can vary but they often include a set of desirable skills and personal traits. In addition to putting effort into the work they are doing, other participants discussed their drive, motivation, perseverance, and determination that had been instilled in them as part of their work ethic. Motivation is one of the six personal resources that Lovitts (20018) identified that are needed for the successful completion of a doctoral degree.

These skills and values that have been obtained from the participants' families have proven valuable in their new field, also known as social setting. The participants' ability to utilize these skills and values in their new fields contradicts the notion that first-generation students lack the forms of capital that will be applicable to their new social settings in academia (e.g. Bourdieu, 1979/1984).

Jane credits her work ethic to her undergraduate institute. Jane attended an institution that serves low-income students by providing tuition free undergraduate coursework. They also require all students to hold a job on campus that they make a wage for. Beyond instilling work ethic, other participants who attended this institution noted that their undergraduate work is why they felt prepared for certain aspects of graduate school. Susan, who also attended this undergraduate institution, felt that she had been given the support that she needed to understand how grants and funding worked as well as support filling out graduate school applications. Elizabeth was able to participate in a program at the same undergraduate institution that had guest speakers who explained finding graduate programs and funding.

The positive impact undergraduate institutions and programs had on the participants supports the idea that individual experiences in undergraduate work can influence first-generation student's ability to create and use social and cultural capital as well as impact their habitus. When considering habitus is a set of dispositions and outlook and that a person's habitus is influenced by their parents as well as their social class, the participants in this study continue to carry the dispositions and outlooks that were instilled by their families. Although habitus is not fixed and can change overtime, it is strongly influenced by one's family. (Winkle-Wagner and McCoy, 2016) Habitus is

also considered to impact the ability for create appropriate forms of capital and gain access to a desired social class. The participants use of their current forms of capital as assets does not support the idea that holding dispositions and outlooks from another social class will prevent first-generation students from being successful in graduate school.

The perceived assets and strengths of the participants aligns with the findings of Holley and Gardener (2012) that supported steering away from a deficit model of thinking when comparing first-generation students to their peers. Continuing to use a deficit model of comparison will only continue to show that first-generation students have perceived disadvantages when they are compared to their continuing-generation peers. Most of what we know about first-generation students comes from research that is done using a deficit model (e.g. Bourdieu and Passeron, 1977). The findings of this study support the use of a Critical Cultural Wealth Model (Duffy et al., 2020) to better understand the complexities of the first-generation student experience, both in undergraduate and graduate work.

Other participants described the ways their various undergraduate institutions prepared them for graduate school. Lisa's undergraduate capstone included writing 10-15 to 20-page papers that included literature reviews and annotated bibliographies that she felt have helped prepare her for graduate schoolwork. Jill, who attended an R1 during undergraduate, felt that there was a high level of expectations in her science-based courses that have prepared her for the coursework in graduate school.

Hannah, who is a non-STEM major that attended a small liberal arts college, also said her classes in undergraduate. When starting graduate school, she was concerned

about what her seminar classes would look like. To her surprise, she entered a class that was everyone sitting around a table to discuss topics just like she had done in her upper-class undergraduate courses. The high expectations of her undergraduate coursework prepared her for graduate level courses.

In addition to coursework and structure, some participants also participated in programming that has been beneficial to their graduate studies. Catilin participated in a scholarship program for first-generation students that offered advising, financial support, and other resources. Emily also participated in a scholarship program during her undergraduate work that she found to be helpful in graduate school. This program focused on teaching students communication skills and how to navigate various relationships. Emily said it was the number one thing from her undergraduate work that helped her prepare for graduate school. In addition to the scholarship program, Emily also volunteered for undergraduate research where she decided she wanted to go to graduate school and found a mentor to support her.

After entering graduate school, some participants continued to seek out resources that would support them and foster success. Some participants sought out professional development opportunities and student organizations while others did not find the support they were looking for, so they helped to create that support.

For participants who are interested in faculty track jobs that include teaching, preparation outside of their field in teaching and learning can be helpful in the interview process as well as when they reach the classroom. Five of the participants had taken advantage of some or all of the classes offered by the University's graduate school in preparing future faculty.

The importance of the faculty preparation program went beyond helping Margo in the classroom. Margo participated in the program at the end of her master's degree program and developed relationships with the professors from the graduate school at the University. When she was considering returning to graduate school for a doctoral program, she had established mentorship that provided her with support and guidance she may not have had otherwise.

The important role that programs in both undergraduate and graduate studies have played for the participants support the expansion of programs geared toward preparing first-generation students to enter graduate school as well as programs to support first-generation students while they complete their graduate studies. Most college campuses have offices and staff dedicated to first-generation undergraduates. These offices can provide a starting point for the expansion of programs for undergraduates to help prepare them for graduate school. Models such as The McNair program, who's success in influencing the doctoral degree attainment of first-generation students is noted (Gittens, 2014), can be used to plan undergraduate preparation for first-generation students who plan to pursue graduate programs.

Existing first-generation offices can also serve as a place where universities can begin to provide programming and support for their first-generation graduate students. With very limited programing dedicated to first-generation graduate students, including the University of North Carolina Chapel Hill and the University of California Los Angeles, there is a clear need for the expansion of first-generation graduate student programs. While the programs mentioned by the participants were not specifically geared toward first-generation graduate students, the addition of this type of programming can

help support the efforts of other areas of campus who are offering graduate student development programs. Dedicated programs for first-generation graduate students can also help fill the gaps in orientation, general graduate school knowledge, and specifics about how to navigate graduate school that have been described by the participants.

When considering the development of dedicated programming for first-generation graduate students, it is also important to consider how programming could help alleviate some of the financial stress faced by first-generation graduate students. Attending graduate school is a tremendous financial obligation both in the cost of attendance and the possible lost earnings during the course of the program. First-generation graduate students are also more likely to have higher amounts of student loan debt from their undergraduate degrees (Perna, 2004). If programming for first-generation graduate students included funding opportunities as well as other financial resources, it could help reduce the stress felt by first-generation graduate students related to money.

The importance of participating in programs at both the undergraduate and graduate level is clear. The participants used their prior knowledge from these programs to navigate their graduate school experience. The application of prior knowledge to their current programs is a trait that is valuable to both future employers and their current academic departments. The ability to use their prior knowledge is also another argument to focus more on the strengths of first-generation graduate students rather than their shortcomings.

Student organizations can provide support for students for both academic and non-academic related issues. Six participants indicated they were involved in graduate

student organizations, to varying degrees. Emily found the graduate student organization in her department to be a source of support for her academic related questions.

Other participants look their involvement in graduate student organizations as opportunities to be involved in leadership positions. Doug took his involvement in graduate student organizations to a higher level by running for, and being elected as, the University's graduate student council president. This leadership position allowed Doug to grow his network, represent graduate students in the University administration, and provided funding for his studies through and assistantship. Amanda serves as the graduate student representative to her department through her program's graduate student organization. This role allows her to be a student voice in faculty meetings and help develop resources for other graduate students such as handbooks and manuals for what to expect in graduate school.

Jill has also taken a leadership role in her graduate program's student organization. Her graduate student organization provided both social and professional development events for students in her graduate program. Professional development events included guest speakers to talk about their careers and job search and industry tour visits, as well as soft skill development through events like public speaking contests.

Debbie looked for support in a graduate student organization but found there was not such an organization in her department. She then took it upon herself to start one to provide support to other students that she was looking for. Unfortunately, at the time of the interview the first meeting of the newly formed group had to be canceled due to the COVID-19 related closure of the University.

The leadership initiative shown by the participants would be highly desirable to prospective employers and their current academic departments. The participants' leadership initiative also further supports the move away from a deficit only model of thinking about first-generation graduate students.

Support

Participants relied on a variety of personal traits and skills to navigate the challenges that presented themselves during their graduate studies. The willingness to ask questions as well as seek out resources was coupled with seeking out support from faculty, staff, peers, and coworkers. Building strong support systems is important for the success of graduate students and even more critical for first-generation students who need to fill in the gaps left by their families' lack of understanding and knowledge of graduate school.

As the participants have noted, their families have a lack of understanding about graduate school and their future careers. This gap in their support network needs to be filled by other sources. Faculty and peer relationships play an important role in graduate student success. The participants described their support network with varying levels of support from faculty, peers, co-workers, and family members.

Familial support, including parents, siblings, grandparents, and extended family, was common among participants but was often lacking due to the lack of understanding. Most of the participants, 15 of 19, indicated they had parental support and 8 participants indicated familial support that was outside of their parents. While the participants'

families were generally supportive of the students' graduate studies, they are not always helpful.

Of her mother's support, Caitlin said "I'll go to my mom, but sometimes it's a little difficult because she doesn't always understand." Rick echoed that feeling when discussing his family, "I mean like, because they are supportive, I don't feel like it's as tough for me because I understand that like, even though they don't understand some things, they still support me." Hannah also shared about her mother's support "Mom, we're very, very close. I mean, she's my biggest cheerleader although she has no idea what I'm doing." Debbie shared the encouraging words her dad sent when she completed her master's.

> "He sent me, he's not an emotional guy, but he sent me a text the day I graduated with my masters and said that his heart was beating out of his chest. He was so proud, which was like immediately weeping. Like, cause my dad, we don't, we're just not affectionate."

Beyond the moral support provided by the participants' parents, some participants have additional family support. Lisa's grandmother asks about her work during their conversations, "I think like when I talked to my grandmother on the phone, she's always like, what are you doing for homework? Are you keeping up with your classes? What are you taking? Are you taking a class this summer?" Emily also had the support of a grandparent as she described in her interview.

> "My grandpa, I forgot to mention him, and I probably should have said something. He never went to college, but he was, he's a very big role model in my life. He actually had passed away in my master's. He was a cosigner on that [loan]. So, I had to like literally like redo the loans because of that."

Some participants noted the importance of another family member: their partners. Some participants have had the support of their partners throughout their whole higher

education journey while others may have only had that support for shorter periods during their graduate work. Regardless of the length of time with their partner, participants noted they could turn to them for understanding, empathy, and support. While the support of other family members, such as parents or grandparents, may be inconsistent and come with obligations, the support of the participants' chosen partners provides a stable source of social-emotional support while completing their graduate programs.

Most of the partners of the participants had bachelor's degrees but did not have graduate degrees. While this did not give the same level of understanding as someone who had completed a graduate degree, the participant's partners still understood the stress and demands placed on the participants by their graduate studies. Lisa's husband provided encouraging words when she is struggling, saying

> "He tells me all the time, "eyes on the prize". Anytime. I'm like, "Work is hard. Homework is hard. It's a nice day." And he's like, "Eyes on the prize. You set yourself a graduation date. Just remember that."

Several participants also noted they could not be doing their graduate work without the support of their partners. While discussing her partner's support, Emily said "I think that it, I don't think I could have done this alone to be honest." Sally echoed this sentiment and highlighted the importance of spousal support by saying "He's extremely supportive. You know, if he wasn't supportive, I wouldn't be doing this for sure." For Sally and Emily, as well as other participants, having their partners' support was an important part of overcoming the challenges associated with graduate school.

Outside of the support provided by their parents, families and partners, the participants discussed their sources of support particularly related to answering questions about navigating graduate school. For 12 of the participants, mentorship that impacted

their graduate studies started in their undergraduate programs. For Emily, her mentor was the reason she even knew what graduate school was.

> "Volunteering as an undergrad and research and getting to know that mentor, that colleague I told you about. That's what made me realize I even want to grad school. I didn't even know that to be completely honest with you, I didn't even know that grad school. I didn't know those two words before I went to college."

Without an undergraduate mentor to encourage and support them, some of the participants would not have made the decision to pursue graduate education. Participants' undergraduate mentors provided support, information on graduate school applications, letters of recommendation, connection to graduate faculty, and continued support during their graduate studies.

Mentorship and faculty support continued to be play an important role throughout the participants' graduate studies. Faculty advisors are likely to be the first contact graduate students have with their department after admission and serve as gatekeepers who play an important role in graduate student socialization (Austin, 2002) and development (Gardner, 2008). Positive relationships with faculty in the department also help create a supportive department environment which also has positive impacts on the research participation of graduate students (Weidman and Stein, 2003). Over half of the participants discussed specific mentorship from faculty members and overall supportiveness from their departments.

Mentorship from faculty members during graduate school provided a variety of support for the participants including conference navigation and presentations, course selection, research goals, and funding opportunities. Faculty mentorship primarily came

from committee chairs or members for the participants. Allison highlighted the importance of the mentorship of her chair.

> "And that made just a world of difference. Um, I definitely wouldn't have been able to finish, um, in the timeframe that I did because we started talking about what to expect. Um, and when to plan each kind of milestone from my first semester"

For Taylor, her mentorship experience with her now committee chair prior to coming to the University impacted her decision on the institution she chose. Taylor described the resources available on the faculty member's website and YouTube page that helped her through the graduate school application process. While she had other funding offers that would have been more financially beneficial at other institutions, she felt so strongly about the mentorship from her now committee chair that she chose this University over the others. Because of this mentoring relationship, Taylor has been able to freely ask questions without a fear of judgment and get the information she needed to persist in her program.

Beyond the support and mentorship from committee chairs and members, participants also noted they had support from other faculty in their programs as well as staff members. Faculty members in the department provided similar support to that of those faculty identified as mentors for the participants. Of the 13 participants who mentioned departmental support, six of them specifically mentioned having a supportive Director of Graduate Studies in their department. Staff members, such as administrative staff and lab staff, provided support that included logistical issues and general social-emotional support.

In addition to individual faculty and staff, some participants discussed an overall supportive culture in their departments. Supportive culture in their departments was described in a variety of ways. Lisa described her department's online community is a place to look for resources and information all in one place. Other departments have provided support for their graduate students in preparing for the job search. Allison noted that because one of their faculty members is active in a program for preparing future professionals, they have "a lot of those resources are pretty front and center for us because we have somebody that's directly involved with that." Other descriptions of a supportive departmental culture included showing respect and gratitude for graduate students' work, and wholistic support that includes insuring students' basic needs are met.

For participants in the study, peer support played a large role in their support networks. Peer support was discussed by 17 of the 19 participants. Peers of the participants provided friendship, advice, and other aspects of social-emotional support that they may not be receiving in other parts of their lives.

For some of the participants, their peers in their programs made of a majority of their friend group. Taylor indicated that her only friends that lived in the University town were the peers in her program. Margo also felt that having her program peers be friends that you can talk to outside of class was helpful. These peers that are also friends can provide a source of understanding and support that other friends may not be able to provide because they do not have a frame of reference for the stress and work of graduate school, as Emily has described.

> “Mostly my very close friends that are also PhD students. Actually, not mostly, entirely except for master students sometimes, but because she's like, she's a veterinarian though, so she doesn't really count as a master's student. But like for the most part, really close peers that are like at the same place as me.”

Participants who were in a program with a cohort model described the closeness they had to their peers in their cohort. Taylor described her cohort as a large reason she knows what is going on in her program. They serve as a major source of support for her and she can rely on them to help her. She cited her cohort as “... probably the biggest advantage I've had.”

The bonds that Catilin made with the cohort during her master’s program has continued to provide support during her doctoral program, even though she is on opposite sides of the country now. Members of her cohort still have a group chat to stay connected and is a source of support for both academic and non-academic issues.

For participants who had jobs, either full-time or part-time, during their graduate studies, their co-workers were often a source of support for them. Some participants were employed in academia giving them a larger support network of people who understand graduate school. Others had jobs outside of academia where their co-workers' educational level varied. Co-workers provided social-emotional support for the participants that were lacking in other areas. For participants who worked in academia while they have pursued graduate work, they were given a support network at work that had a better understanding of the stress and demands of graduate school than their family and other friends.

Lisa works in a different academic department than she is enrolled in but she has found support from her colleagues who are also graduate students. Her co-workers could provide answers to questions that are a part of the unwritten curriculum of graduate

school such as how to interact with committee members and expectations of professionalism.

When the participants received support at work that came from a supervisor, they were given an even more supportive environment. Margo was fortunate enough to have a supportive supervisor in her role at a higher education institution. Not only did her supervisor provide her encouragement and network growth opportunities, but he also allowed her to take one half day per week to focus on her dissertation.

During her master's program, Emily held a job at Starbuck's that funded her program. During her employment there, her shift supervisor became a friend and mentor who encouraged and supported her throughout the process to apply to doctoral programs. Emily still talks with her former supervisor, and they have been a source of support during her doctoral studies as well as her master's program.

A support network plays an important role in graduate student success. Relationships built with faculty, peers, coworkers, and support from family members can be a part of support networks for first-generation graduate students. The participants who did note they had familial support also noted the support came with a lack of understanding of the demands of graduate school. This lack of understanding on the part of the participants' families leaves a gap in their support network that needs to be filled.

Many of the participants discussed the role faculty mentorship has played in their lives which highlights the previous findings on the importance of faculty relationships to graduate student success (Gardner, 2008, Austin, 2002). However, it has also been noted in previous literature that first-generation students are likely to face more difficulty than

their peers in making connections with faculty members (Weidman and Stein, 2003). The findings of the previous research present a paradoxical situation for first-generation students. The majority of participants in the study have defied the findings of Weidman and Stein (2003) by making strong relationships with faculty members that provided support and mentorship during their graduate studies as well as their undergraduate programs. Early faculty support and mentorship can play a key role in first-generation graduate students experiencing apply to and navigating graduate school.

Creating peer networks was a challenging but rewarding experience for the participants. Some participants found it difficult to relate to all of their peers due to the differences in experience such as their peers' lack of financial challenges or their higher amounts of familial support. However, when peer connections were made, they provided a strong support network for the participants. Previous literature (e.g., Barney, 1995, Gardner, 2013, Austin, 2002, and Ostrove et al., 2011) has indicated that first-generation students face increased challenges related to belonging in graduate school. Building strong peer connections can provide social-emotional support and increase feelings of belongingness for first-generation graduate students.

Outside of their peers, the participants in the study also sought support from their co-workers. With the gap in the support networks of first-generation graduate students left by a lack of familial support and understanding, the students left to look for ways to fill the gap. For first-generation graduate students who work in academia or have co-workers with experience in graduate education, they become a natural source of support that can help fill the gap created by a lack of familial support.

Family members' role in a first-generation support network can be challenging. Even when participants noted their families were supportive, they lacked the understanding to be involved in helping with decisions or navigating graduate programs. Familial expectations can also conflict with first-generation students' goals which creates additional stress for first-generation students pursuing graduate education.

Conclusion

As the participant portraits showed, each participant has their own unique story. However, there are many common themes surrounding challenges and navigation of graduate studies for first-generation graduate students. The themes around challenges, finances, navigation, and support all provide a framework for universities to develop strong support programs for their first-generation graduate students.

Participants faced a variety of challenges including lack of preparation, family conflicts, isolation, difficulty navigating the written and hidden curriculum, and mental health. Finances and funding stood out as a salient challenge for the participants. Academic challenges started as early as high school with limited Advanced Placement courses and college preparation. This lack of preparation continued as the participants completed their undergraduate course work and entered graduate school. Feelings of isolation and mental health challenges were also among the salient challenges for the participants as they have navigated graduate school.

Beyond the academic and familial challenges, participants were faced with significant financial challenges. Many participants did not understand the funding processes for graduate school which aligned with the findings of Gardner (2013).

Without parental financial support, the participants were left to provide for themselves, as also noted by Hoffer et al. (2003). For participants with children, the cost of childcare added additional financial stress.

The participants have drawn on their strengths to navigate graduate school. Strengths of the participants include strong work ethic, motivation, determination, perseverance, and leadership skills. The assists and strengths these participants have discussed align with the findings of Holly and Gardner (2012). The strengths of the participants support steering away from a deficit model of assessing first-generation graduate students and focusing on assets-based models using cultural wealth (Yosso, 2005) as a theoretical framework.

Traditional social capital research argues that the existing capital that first-generation students enter graduate school with will no longer apply in their new social setting (Bourdieu, 79/84). However, the participants in this study were able to use their existing bank of social and cultural capital to navigate graduate school and build support networks that included relationships with faculty, staff, and peers. The participants' successful use of their existing capital contradicts Vasil and McCall (2018) who felt their challenges in graduate school were due in part to not inheriting the capital they needed to be successful in graduate school.

Yosso (2005) used the concepts of Critical Race Theory to challenge the deficit model of assessing Communities of Color. Concepts of Critical Race Theory include challenging the dominant ideology and emphases on experiential knowledge and focusing on knowledge, skills, and abilities. This study supports challenging the dominant ideology of a deficit model of assessing first-generation students. The participants use

their strengths and prior knowledge also supports an emphasis on experiential knowledge. The challenges faced by the participants were not personal deficits as have been the focus of prior research on first-generation students but rather the systemic inequalities produced by higher education and the society at large. By focusing on the community cultural wealth and strengths that first-generation students bring with them to graduate school instead of their lack of social and cultural capital, future programming and research can focus on assets-based approaches to the experiences of first-generation graduate students.

CHAPTER 5: CONCLUSION

Introduction

The previous chapters have covered relevant literature and the experiences of the participants as they have navigated graduate school. This final chapter will provide a summary of the dissertation that includes the challenges faced by these first-generation doctoral students as they have navigated graduate school as well as highlight the strengths they used to navigate their challenges. I will outline the implications and recommendations for practice including the development and implementation of programming focused on first-generation graduate students. This chapter will also present recommendations for future research.

Summary

While extensive research on and programming for first-generation undergraduate students exists, limited research and programming is available for first-generation graduate students. Current literature on graduate students does not include the challenges, needs, and strengths of first-generation graduate students. The purpose of this study has been to examine how first-generation doctoral students navigate graduate degree programs at a research university.

I proposed a research question to look at how first-generation graduate students navigate graduate school: How do first-generation graduate students navigate not only their coursework but other academic and social aspects of graduate school as well? Within the graduate school experience, the research focuses on application and funding processes, family support, socialization, peer networks, and faculty relationships.

This study examines the experiences of 19 first-generation graduate students. These 19 participants each have their own unique story but many of the same themes arise in the challenges they have faced and the ways they have navigated graduate school. Participants faced challenges related to preparation, family, parenting, isolation, written and hidden curriculum, mental health, and funding.

The challenges of navigating graduate school started as early as high school for some participants. A lack of rigorous, high-level coursework coupled with a general lack of study and time management skills made the participants feel behind from the time they entered college and they did not feel they were able to catch up to their peers. Their undergraduate education also did not do an adequate job of preparing them for graduate school.

Challenges with graduate school continued as the participants applied to graduate school. Participants discussed challenges with how to apply to graduate school and understanding how to fund their graduate studies. After participants were accepted to their graduate programs, they faced a lack of understanding of expectations and norms. Many participants mentioned the lack of adequate orientation on both an institutional and departmental level. A lack of orientation combined with the fact that participants did not have family members who were familiar with graduate school left the participants to fend for themselves. Hannah also noted that a lack of understanding by the faculty members about the questions first-generation students have also made it more difficult for first-generation students entering graduate programs.

Family related challenges are a dominant theme across the study sample with 17 of the 19 participants noting challenges related to family that included their parents and

their own families. Participants noted their families had a general lack of understanding of graduate school. Even if their family was supportive of their graduate school pursuits, the support provided did not go beyond serving as a cheerleader for the student. Family challenges were exaggerated by conflicts around familial obligations, values, and finances.

Participants faced feelings of isolation that were increased by challenges related to being a first-generation doctoral student. First-generation graduate students can face both physical and metaphorical isolation from their families and friends. First-generation graduate students are "misfits in both worlds" who are no longer at ease in their childhood homes, and they have not found their place in their new academic homes Christopher (1995). Isolation can also cause an increase in lack of belonging.

Issues of belonging and isolation are directly related to the mental health concerns mentioned by many participants. Although mental health issues are a growing concern that can impact all graduate students (Evans, Bira, Gastelum, Weiss, & Vanderford, 2018), first-generation students who are pursuing graduate work have additional stress caused by increased challenges that will impact their mental health (House, Neal, and Kolb, 2020).

Among the challenges faced by first-generation doctoral students in this study, issues around funding were the most salient. Regardless of the primary source of their funding, nearly all participants did not have adequate funding to support their financial needs while in graduate school. A lack of funding caused students to seek other sources of funding such as unapproved jobs, loans, and support from their partners. For the 10 participants who sought additional work, this took away time from other relevant

experiences putting them at an eventual disadvantage on the job market (Hirudayariaj, 2018) as well as possibly increasing their time to degree (Diaz, 2021).

Challenges related to funding also started before some participants entered graduate school. For example, many did not know they could even receive funding like assistantships. Financial challenges for first-generation doctoral students are complicated more because not all students have the same support around funding graduate school (Forbes, Schlesselman-Tarango, and Keeran, 2017) and participants' families also lacked understanding of graduate school funding options, Financial challenges can cause additional stress and isolation as well as impact the overall success of first-generation doctoral students (Ostrove et al., 2011).

For participants who were also parents, the challenges of graduate school were made more difficult. Financial challenges, which were a salient challenge for the sample, were more difficult when parents needed to factor in the cost of childcare. The time commitments of graduate school were also more difficult for parents who felt they were not able to spend the time with their children they should.

The challenges students have faced have not been challenges related to personal deficits, as research around first-generation students typically focuses on. The challenges the participants have faced were due in large to systemic inequalities created by higher education and society at large. The challenges related to the systemic inequalities support Yosso's (2005) community cultural wealth that incorporates the Critical Race Theory concepts of social justice and challenging the dominant ideologies.

Despite the variety of challenges the participants faced, they used a variety of knowledge, skills and strengths to navigate the challenges they faced, including willingness to ask questions, work ethic, seeking resources and support, and undergraduate program participation. Participants relied on their strengths and drew on previous experiences to navigate graduate school, supporting the concepts of community cultural wealth Yosso (2005). The participant's use of their strengths and prior knowledge supports the use of a strengths based approaching to researching and supporting first-generation graduate students.

A willingness to ask questions helped participants navigate graduate school as early as the application process. By emailing department chairs and professors they were interested in working with, participants were able to get questions answered about program requirements and how to apply to the program.

Work ethic was also a strength the participants drew on to help them navigate graduate school. Seven participants, all from rural backgrounds, noted that they used work ethic to overcome challenges they had faced. Other participants discussed strengths including drive, motivation, perseverance, and determination they had used to overcome challenges. The participants' ability to utilize the strengths they have contradicts the notion that first-generation students do not have appropriate forms of capital to be successful in academic settings (e.g. Bourdieu, 1979/1984).

Participants relied on a variety of strengths, knowledge, and skills to navigate their graduate programs; however, one strategy stood out from the others: support. Participants sought out support from faculty, staff, peers, and coworkers and building strong support networks played an important role in navigating graduate school. Building

strong support networks has previously been thought of as a deficit for first-generation students who lack the appropriate forms of social and cultural capital to build a strong support network (e.g., Garger, 1995; Dews and Law, 1995).

Prior literature on first-generation graduate students also noted that students had a difficult time making connections with faculty members (e.g., Pegueros, 1995; Warren, 1995; Weidman and Stein, 2003). The participants in this study defied the prior research on how first-generation students have made connections with faculty members. For many participants, building a support network started during their undergraduate work. Finding a faculty member to serve as a mentor during undergraduate that can provide support during graduate school was helpful for many participants. Continuing to build relationships with faculty members once in graduate school was also a common theme among participants. Faculty relationships are key for graduate student success and can offset the lack of preparation and knowledge of norms and expectations (Willison and Gibson, 2011). Austin (2002) noted that faculty advisors play a key role in the socialization of graduate students. Relationships are considered a form of social capital (Bourdieu, 1979/1984) and can be used as currency in a social setting. Participants who created relationships with faculty can use this form of social capital to exchange it for other forms of social and cultural capital.

Another consideration to make in the contrast between previous research findings and the current study is departmental culture. The participants in this study have successfully made connections with faculty members in their respective departments. The participants have defied the previous findings that first-generation students struggle to

make connections with faculty members but the role that individual department cultures have played in these successful faculty/student relationships is unknown.

For participants who were in committed relationships or married, the support of their partners played a large role in how they have navigated graduate school. Having a supportive partner who understood the stress and demands of graduate school helped the participants overcome the challenges they have faced during their graduate programs. Other family members, such as parents, can be an inconstant and complicated source of support where a supportive partner provides a strong, reliable source of support for the participants.

Participants also drew on prior knowledge to help them navigate graduate school including knowledge gained during their participation in undergraduate support programs. Participants were asked to reflect on programming that was offered to them as first-generation doctoral students and if there were any programs or resources that would have been helpful to them during their graduate work. In this reflection, participants noted there were not support programs in place and having programs that included orientation, clear academic expectations, mentorship, and mental health care would have been helpful during their graduate programs. These recommendations have been considered in the implications and recommendations for practice below.

Implications and Recommendations for Practice

Limited programming currently exists that supports first-generation graduate students (e.g. Duke University, University of North Carolina Chapel Hill, and University of Washington). Participants in this study were given the opportunity to discuss programs

they felt would be helpful to first-generation graduate students. Recommendations for programming for first-generation graduate students come from the participant suggestions along with my analysis of the potential programming that could benefit first-generation graduate students.

Colleges and universities can better serve first-generation graduate students by providing support in the following areas: graduate school preparation, applications, program requirements and navigation, mental health, funding, networking, and mentorships. This support can be provided at both institutional and departmental levels. Programming for first-generation students interested in pursuing graduate school can also start with high-school and undergraduate students.

Supporting first-generation graduate students starts far before a student enrolls in a graduate program. Colleges and universities across the United States are positioned to support first-generation students who plan to attend graduate school with targeted programing. These targeted programs, which can begin while the student is an undergraduate, can not only help graduate education, but also support the individual students' attainment of personal and professional goals. Holley and Gardner (2012) also noted the significant position that institutions are in to support first-generation students with deliberate programming and actions.

While some responsibility does fall on the student to seek help, they cannot seek help if help is not there for them to access in the first place. Implementing programming for first-generation graduate students could help students find additional resources and tap into the strengths they enter graduate school with. When designing programs, rather

than focusing on the weaknesses of first-generation students, we should empower them to build on the strengths they have (Swindle, 2018).

The support for first-generation students pursuing graduate school starts with providing information and guidance on applying for graduate programs as well as the funding process. By providing informational sessions, website resources such as guides or videos, and intentional outreach to first-generation undergraduate students, universities have the opportunity to support potential graduate students before they are even accepted into graduate programs. This would not only improve access to graduate school for first-generation students, but it would also start to provide a sense of belonging that can be built upon after they begin their graduate school programs. These actions would improve the macroenvironment of graduate school to create a more inclusive space for first-generation graduate students.

Supporting first-generation students should continue after they are accepted to graduate school. Many participants felt the support of first-generation graduate students can start with a formal orientation. While Magnolia University has a general graduate student orientation as well as a teaching assistant orientation, neither orientation has specific components for first-generation students. Many of the participants in this study were also unaware of the University's graduate student orientation because the program started after the participants began their programs.

At an institutional level, universities could also hold orientation sessions that include topics to help first-generation students navigate their graduate programs. Topics to include in orientation sessions could include mentorships, research, academic writing, networking, mental health, and campus resources. Panel sessions with current first-

generation doctoral students and faculty members could also give insight into how to navigate graduate school as a first-generation student. These university-wide orientations could be in the form of full days of programming at the beginning of the academic year or a series of programs throughout the year. Regardless of the format of the programs, they should be widely advertised to ensure information about programming reaches first-generation graduate students.

In addition to a desire to have university-wide orientations, participants in this study also expressed that orientation on a departmental level would have helped them navigate their doctoral programs. Department orientations widely vary across Magnolia University's campus and do not always provide the information students, especially first-generation students, need to be successful in their programs. Holding stronger department orientation that gave discipline and place specifics would likely be helpful since each program and discipline has different requirements and expectations. Departmental orientations could include how to navigate doctoral programs, how to propose a dissertation, how to conduct dissertation research, and other departmental expectations. While many of the programming at both the institutional and departmental levels would be helpful for all students, these programs would help first-generation students who likely do not have the familial support and backgrounds to know how to navigate the doctoral process.

One of the most basic functions of first-generation graduate student programming should be to help direct students to resources, both on and off campus, that they may need to assist them during their graduate school experience. Students may need access to financial aid/loan assistance, counseling services, and advising assistance on campus.

While many university campuses have services, first-generation graduate students may not know how to access them or believe these services are for undergraduate students. Offering services in these areas that are more targeted to the specific needs of graduate students was of high importance to many participants in this study.

Many participants mentioned health services, both mental health and general health, as a resource that is available on campus but does not meet their needs as graduate students. Issues around privacy, location, and treatment made it difficult for participants to utilize these health services as the University intended. In line with the participants' suggestions, mental health services should be offered directly to graduate students. Participants noted that when graduate students are concerned about seeing their students or classmates who are interning at a campus counseling center, they are less likely to seek the appropriate mental health care they need.

The health center at Magnolia University targets undergraduate students. The participants in this study did not feel comfortable at the university's student health center because it did not meet their needs. Graduate students are older than undergraduate students and have different health care needs than the undergraduate population. University health centers are focused on providing acute care for illnesses like colds and flus rather than adult primary care.

Many graduate students have aged out of the opportunity to be covered by their parents' health insurance and rely fully on the university health center and university provided insurance to cover their medical needs. While the facilities may offer other types of care, such as gynecology, other types of care require students to seek out other providers at an additional cost. This puts graduate students, especially those whose

funding would require them to utilize a university health center for their health care, in a difficult situation. They may not have the ability to search for other providers under their university health care plan. If universities were to provide adequate health care coverage to graduate students, they could better support the mental and physical health needs of a population of students that is much different than traditional undergraduate students.

Along with a lack of adequate healthcare access and insurance coverage, participants also noted the financial challenges caused by inadequate graduate assistantship stipends. For most of the participants, their stipends were not enough to cover their basic needs. Financial support from partners, loans, and side jobs helped the participants meet their basic needs but finances remained a prominent source of stress for most participants. Reducing the financial burden on first-generation graduate students would reduce the associated financial stress. In cases where students are working additional hours or jobs, it would also give them more time to focus on their graduate programs. Increasing graduate assistant stipends to a level that would allow them to meet at least their basic needs would benefit first-generation students as well as their peers who are facing financial challenges.

Participants discussed the key role a mentor played in their graduate education. During Debbie's reflection of navigating graduate school, she felt it was important to have a mentor early in your program. This mentor should be someone who can help you navigate the written and unwritten rules of graduate school as well as help you develop strategies to overcome challenges that come up. Debbie's thoughts on the importance of mentorship align with the literature on the subject (e.g. Austin, 2002; Gardner, 2008; Charlip, p. 37; Lang (p. 172); Perueros, p. 95).

Mentorship of first-generation graduate students is critical to help them fill the gaps in their support network. In order to support first-generation graduate students developing meaningful mentoring relationships, programs to connect first-generation graduate students to faculty, especially those who are also first-generation themselves. By intentionally providing mentorship opportunities for first-generation graduate students, the students will have someone to turn to with questions about coursework, program requirements, conferences, networking, and other graduate school related concerns. While all faculty and staff have the opportunity to mentor and support first-generation graduate students, those with similar backgrounds are in a unique situation to provide support and understanding for the students. Faculty from first-generation and working-class backgrounds also present a valuable resource to help institutions and departments develop better recruitment and retention programs for their students (Pifer and Riffle, 2018). Mentoring programs would be best to implement on a departmental or college level to provide first-generation graduate students with mentors who have knowledge of disciple and program specific concerns.

In addition to providing opportunities for faculty and students to connect, faculty can also take a proactive approach to supporting first-generation graduate students. Faculty have an opportunity to interact more frequently with students than other members of the university community, including their advisor. Faculty relationships play a key role in a positive microenvironment and are important to the development of social capital (Lovitts, 2008). Depending on class schedules, they could see the students several times a week. In order to best serve their first-generation students, having a knowledge of the challenges the students are facing as well as the values and knowledge they bring with

them will help faculty members support the students better than they have been in the past.

With most of the participants in this study identifying as rural students, it is important to give attention to challenges that may be more prevalent for first-generation students who also identify as rural students. The three categories of concerns of rural students -- lifestyle, money, and academic preparation -- laid out by McDonough, Gildersleeve, and Jarsky (2010) provide a viable starting point for addressing the issues that first-generation graduate students from rural areas could be facing. Addressing issues in each of the above categories can assist the students in a smoother transition and set them up for successful completion of their graduate degrees.

Academic preparation was a concern that was relevant to the rural participants in this study. The participants noted their rural schools lacked Advanced Placement and other college preparatory courses that failed to prepare them for college as well as set them back when they entered graduate school. Providing support for first-generation undergraduate and graduate students to help them fill the gap in their education left by a lack of advanced coursework in high school can help them be successful in their graduate programs.

Programs aimed at first-generation graduate students can help to provide this same since of community that students from rural areas might be familiar with. While some graduate programs and departments have this community feel, others do not. This may leave students feeling out of place and alone. By fostering this community, institutions could help students succeed by providing them with the social support they may be lacking.

Opportunities to meet other first-generation graduate students is one way to help foster community. If there were University wide events that invited first-generation PhD students, they could build peer support networks and learn from each other. Even with a 20% attendance rate, Debbie felt that would be a good group size to start with. Then there could be possibilities of subgroups, like rural first-generation PhD students, to meet and network.

When reflecting on how challenges could have been prevented, some participants started by going back to their undergraduate experience. Debbie wished someone would have told her things about graduate school like isolation, the need for peer support early on, how to plan for graduate school, and a general discussion of their own experiences. These ideas are similar to what happens in graduate school preparation programs, such as the McNair Scholars, but not all first-generation students have access to these programs. Providing more access to these types of experiences would expose students to graduate school options as well as help them be more prepared for their chosen program.

With many institutions already providing support for first-generation undergraduates, institutions have an opportunity to integrate more graduate school preparation into these existing programs. Graduate school preparation programs such as McNair Scholars are only available to the participants of the program. If other first-generation serving programs provided graduate school preparation that included GRE preparation, how to apply to graduate school, funding graduate school, what to expect in graduate school, and now to navigate graduate school. Programming could also include panel discussions with current first-generation graduate students and graduate faculty to allow students to ask questions as they prepare for graduate school.

While not directly serving the graduate student population, another key to assisting first-generation graduate students could start as early as high school. Not all students will know they want to attend graduate school that early, but many students may not even know it is an option. McDonough, Gildersleeve, and Jarsky (2010) suggest that universities begin incorporating themselves into the community more and "demystify higher education". This concept can also be applied to graduate schools. If first-generation students have a better understanding of the process of graduate school before entering undergraduate studies, they can make decisions that allow for graduate school as an option. Not all students may eventually choose that option, but it is easier to have the option and not need it than to desire something that is not possible. Institutions can also do a better job of giving rural schools the information they need to help students understand graduate school.

Social media in its various forms such as Twitter, Facebook, Instagram, and Tik Tok are a frequent source of connecting in our personal and professional lives. For first-generation students pursuing graduate school, these social media platforms may be an important source of information about their academic futures. Wohn et al. (2013) found that Facebook was an important tool for first-generation students while they were still in high school to make decisions about college. Having Facebook friends who were in college and from a similar background provided examples for the students. Wohn et al. (2013) also found that the use of social media to find information about college had higher levels of efficacy about applying to college. The same ideas around social media and first-generation undergraduate students can also be applied to graduate students.

Social media networks, like Twitter and Facebook, include a growing network of academics and academic communities. These platforms allow both faculty and students across the globe to connect and share their experiences and ideas. @FirstGenDocs harnessed the power of social media by creating a Twitter page were first-generation graduate students and faculty could come together. After discovering that almost one third of doctoral students were first-generation students but there was not literature on these students nor were systems designed with them in mind, @FirstGenDocs was born as a space for first-generation academics at all stages. This community joins the growing communities of academics on Twitter such as #PhDChat, #AcademicTwitter, #SAPro, and #Blackademics, @AcademicChatter, @PhDVoice, @CiteASista, @SistaPhD, and @ReadBlackademia. (Brown, Wallace, and Cokley, 2021) The use of social media to support first-generation graduate students can be implemented on a departmental and institutional level.

Creating and implementing programming for first-generation graduate students could include expanding existing offices or the development of new offices. Institutions who have existing first-generation programming my chose to integrate a graduate student component into their current structure. While the implementation and expansion of support programs may require additional staff and changes in structure of the programming offerings, the institution may be able to utilize existing resources and procedures to make the implementation smoother. Institutions that do not choose to integrate programs or that do not have a first-generation program could make the programming separate or include it in an existing office or department who serves the more general graduate student population.

Recommendations for Future Research

With limited research on first-generation students who pursue graduate school, many areas still need to be explored, particularly pertaining to the challenges they face and the strengths they have used to navigate challenges. This study provides insight into the challenges faced by first-generation doctoral students as well as the knowledge, skills, and abilities they have used to be successful in their graduate work. This exploratory study opens a door for future research to explore the topic of first-generation graduate students further.

Future research on first-generation graduate students should focus on using a strengths-based approach. Applying Yosso's (2005) approach of cultural wealth, the strengths of first-generation graduate students could challenge the deficit model used in previous educational research. Strengths of first-generation graduate students could include work ethic, grit, determination, perseverance, and resourcefulness. The strengths held by the students in one area could help them overcome challenges in other areas (Hand and Payne, 2008).

As Brown, Ramrakhini, and Tate (2020) discuss, first-generation students are not a problem to be fixed. First-generation graduate students have unique strengths that can help them navigate graduate school. More attention needs to be brought to strengths of first-generation graduate students and less focus on deficits as previous literature on first-generation students has done. Recent research (e.g. Duffy et al., 2020; Tate et al., 2015; Mullins, 2018; Holley and Gardner, 2012) have used a strengths-based approach to studying first-generation students that can be expanded upon to include the strengths of first-generation graduate students.

In order to accurately assess the needs of first-generation graduate students, an understanding of both their challenges and strengths is needed. An accurate assessment of the needs of first-generation graduate students that includes their strengths will help universities build programs to better support first-generation graduate students. Programs could include teaching first-generation graduate students how to build on their strengths during their graduate programs and beyond.

The examination of the experiences of various sub-groups of graduate students should be considered in future research. This study included the experiences of many rural first-generation doctoral students. Future research should include experiences of first-generation students from non-rural areas such as suburbs and urban settings. Other demographics and identities to consider in future research include gender, sexuality, life stage, parents, and academic discipline.

In addition to considering the sub-groups of first-generation doctoral students, future research should also include how intersectionality of the students' identities impacts both challenges in and navigation of their graduate programs. Intersectionalities of identities based in as class, place, life stage, race, and gender can better be examined in a larger, more diverse sample than was collected in this study. While some studies examine underrepresented minority graduate students (Howard, 2017; Olive, 2014; Leyna, 2011), more work should be done to better understand the intersecting identities of race and first-generation status for doctoral students.

As noted by the participants in this study, as well as prior research (Austin, 2002; Hirudayaraj, 2018; Wedman and Stein, 2003) faculty relationships play an important role in the success of graduate students. Prior research has also noted the difficulty first-

generation students have making these important faculty connections (e.g., Pegueros, 1995; Warren, 1995; Weidman and Stein, 2003). Additional research could also include how both institutional and departmental culture has impacted the ability for first-generation students to establish faculty relationships. The examination of the role of institutional and departmental culture would not only better identify the strengths of first-generation students who have made these important connections but it would also provide benchmarks for other institutions and departments who wish to improve the culture of their organization to better support first-generation students. Future work should include participants from more institutions, including minority serving institutions, as well as additional program and department representation.

In addition to the exploration of the various sub-groups of first-generation graduate students, future research should also examine how intersectionality plays a role in the experiences of first-generation graduate students. Each first-generation graduate student has a unique story that includes the impact their various identities have had on their experiences. Similar to the research needed on sub-groups, future research on intersectionality should include gender, sexuality, life stage, parents, race, and place.

This study explored the experiences of first-generation students who were successful in their doctoral programs. Future research should include the experiences of students who did not complete their respective graduate programs. Including the experiences of first-generation students who did not complete their graduate programs will better inform policy and practice to barriers and systemic inequalities faced by these students.

Future research should also explore the experiences of first-generation students as they enter the workforce. This exploration could include the experiences of first-generation students who enter both the academic and non-academic workforce. Understanding the experiences of first-generation graduates as they enter the workforce will not only help programs improve preparing students for entering the workforce but also help employers understand the challenges faced by their new employees. This could be particularly helpful for colleges and universities who produce and hire faculty members by helping them develop stronger faculty preparation programs for doctoral students and new faculty members. The faculty memoirs included in *This Fine Place So Far from Home: Voices of Academics from the Working Class* (Dews and Law, 1995) discuss their experiences entering the academic workforce. Future research on first-generation graduate students' experiences entering the workforce could expand the discussions started by the memoirs in Dews and Law (1995).

Research should be done to assess the existing programs for first-generation graduate students. Existing programs, including programs at Duke University, University of North Carolina, and University of California, Los Angles, provide support for first-generation graduate students in areas such as professional development, mentorship, networking, socialization, belongingness, and academic success. Each program offers a different combination of these supports for first-generation graduate students. Assessing the effectiveness of each program and the program components would help other institutions develop their own programs for first-generation graduate students.

In addition to scholarly research, institutions should also consider collecting data on their first-generation graduate students to assess the needs of the students on both

institutional and departmental levels. If institutions are not already identifying first-generation graduate students, they should start their data collection with adding identifying questions to existing data collection points such as graduate school applications or class registration portals. After identifying first-generation graduate students, surveying their needs at both institutional and departmental levels will help faculty, staff, and administrators determine the best course of action to support first-generation graduate students. Collecting data on the needs of first-generation graduate students can also support the justification of funding for first-generation graduate student programs.

Conclusion

With the beginning of implementation of first-generation graduate student support programs at institution like UNC-Chapel Hill and the University of Washington, there is hope that other institutions will see the value in supporting first-generation graduate students. The experiences navigating graduate school described by the first-generation graduate students in this study present examples of the challenges faced by this population of students as well as the strengths and tools they use to navigate graduate school. The experiences of these students can provide valuable insights to practitioners and researchers as they develop support programs and research studies.

With many institutions already supporting the undergraduate work of first-generation students, supporting the recruitment and retention of first-generation students to graduate school is a logical and important step in diversifying graduate education. A need to recruit and retain a diverse body of graduate students which includes first-generation students is clear (Poock, 2007). While some universities do have services to

assist first-generation graduate students, more institutions should follow suit to ensure that the needs of all students are being met.

As a student affairs professional and first-generation college graduate, my goal is to be an advocate for first-generation students. By better understanding the needs of first-generation graduate students, I hope to implement programming for undergraduate students who are planning to attend graduate school to better prepare them for graduate school. I also plan to advocate for the addition of programming for first-generation graduate students on my campus.

APPENDICES

APPENDIX A- EMAIL TO SHARE ADVERTISEMENT

To Whom It May Concern:

My name is Leah Vance and I am a doctoral student at the University of Kentucky. I am recruiting participants for my dissertation entitled "Navigating Graduate School: First-Generation Doctoral Students Experiences". For this study, I am seeking volunteer participants who are first-generation doctoral students. I am contacting you to see if you are willing and able to share the attached advertisement with your network (*adjust this language based on who I am contacting)*. Advertisements can be printed and displayed in your building or shared via email.

The advertisement and study have been approved by the Institutional Review Board at the University of Kentucky. People interested in volunteering are asked to contact me directly for more information about the study or to express interest in participating.

Distribution of the advertisement will greatly help me spread the word about the research to any interested students. I believe it is important to reach out to a wide variety of potential participants, and I greatly appreciate your support in helping me achieve this goal. If you agree to share the advertisement, please let me know.

For more information, or if you have any questions about the study, please feel free to contact me at leah.vance@uky.edu

Thank you for your consideration in supporting my recruitment efforts for this research. I look forward to hearing from you!

Best,

Leah K. Vance, M.S.

Higher Education and Policy Studies Doctoral Student

APPENDIX B- RECRUITMENT FLYER

NAVIGATING GRADUATE SCHOOL: FIRST-GENERATION DOCTORAL STUDENT EXPERIENCES

ARE YOU A..

First-Generation Doctoral Student?

This study aims to look at how first-generation graduate students navigate graduate school. This study will explore how these students navigate not only their coursework but other academic and social aspects of graduate school as well.

To meet the participation criteria, you must:

- **Be Doctoral Student at the University of Kentucky**
- **Completed at least 1 semester in your current program**
- **Be a resident of the United States**

For more information or to participate in the study, contact:
Leah Vance at leah.vance@uky.edu

APPENDIX C- INTERVIEW PROTOCOL

This is Leah Vance on (DATE). Thank you for participating in this research study. The purpose of this study is to explore how first-generation graduate students have navigated graduate school. All answers will be kept confidential. Please remember your participation is voluntary and you may stop at any time or skip any question. Do you have any questions before we begin?

1. Can you tell me a little bit about yourself?
    a. Where are you from?
        i. Do you consider yourself to be from rural, non-rural, suburban, or urban?
        ii. Is your family from a rural, non-rural, suburban, or urban area?
    b. Where do you live now?
    c. Can you give me an educational biography?
        i. Where did you go to elementary school?
        ii. Middle and High school?
        iii. What was your undergraduate intuition and major?
        iv. What was your Master's institution and major?
        v. Was there time between your degrees?
            1. If yes, what did you do during that time?
    d. What is your field of study?
    e. What degree program are you in?
        i. How would you characterize your program? (i.e. STEM or Humanities)
    f. What year/stage of the program are you in?
        i. Pre or post qualifying exam?
        ii. Does your program have a masters degree?
    g. When is your anticipated completion date?
    h. What do your parents do?
    i. What level of schooling did your parents complete?
    j. Do you have siblings?
        i. Did your siblings attend college?
    k. Are you or your parents from a military background?
    l. What is your age?
    m. What is your living situation?
    n. Children, married, partner?
    o. What is your life like outside of your studies?

2. What was your path to a doctoral program?
    a. How did you decide to do a masters?
    b. How did you decide to do a doctorate?
    c. How did you choose this institution and program?
    d. Did you have parental support?
    e. Did you have professors or other mentors encourage you?

i. How did you build those mentoring relationships?

3. Describe how you have navigated graduate school.
    a. Application process
    b. Funding process
    c. Course selection
    d. Coursework
    e. Qualifying Exams
    f. Dissertation
    g. Conference papers, presentations, and attendance

4. Going back to funding process, how are you funding your doctoral program?
        i. Does your department provide funding?
        ii. What sources of funding do you have?
        iii. What level of funding is provided from
            1. Assistantships?
            2. Fellowships?
            3. Loans?
            4. other?
        iv. Do these sources provide adequate funding?
            1. Do you have supplemental/extra jobs outside of the institution?
            2. Do you receive financial support from family or a partner?
        v. How do you spend your summers?

5. Do you feel you were prepared for graduate school?
    a. Why or why not?
    b. What skills and knowledges have helped you succeed?
        i. How did you acquire these?
    c. What experiences during your undergraduate work helped prepare you for graduate school?
    d. What life experiences have been helpful in graduate school?
    e. Were you involved in student organizations in college?
    f. Were you involved in youth development programs during your childhood such as scouts, 4-H, FFA or church groups?
        i. How did youth groups help you coming into graduate school?
    g. Have you encountered any challenges?
    h. How did you overcome those challenges?
        i. Strategies
        ii. Personal strengths/knowledge
        iii. Resources
    i. Could any of the challenges have been prevented? How so?

6. How would you compare your experiences as a first-generation student to the experiences of your peers who are not first-generation?

7. What things would have been helpful to know before entering graduate school?
    a. Are there additional knowledges or skills you think would have been helpful in graduate school?

8. Who do you turn to for support about academic related issues?
    a. How did you build that relationship?
    b. What support does this relationship provide? Examples?
    c. What might you hope for in support for academic related issues?
    d. What campus programs or resources have you found that supported academic related issue?
    e. Are there any programs or resources that you think would be helpful?

9. Who do you turn to for support about non-academic graduate school issues?
    a. How did you build that relationship?
    b. What support does this relationship provide? Examples?
    c. What might you hope for in support for non-academic related issues?
    d. What campus programs or resources have you found that supported non-academic related issue?
    e. Are there any programs or resources that you think would be helpful?

10. Describe your family's understanding of graduate school?
    a. If there is a partner, does the partner have understanding?

11. Have you encountered any barriers to academic success that we have not discussed yet?
    a. How so?
        i. If children, what ways did that impact academic success?
    b. What did you do to overcome these challenges?
        i. Strategies
        ii. Personal strengths/knowledge
        iii. Resources
    c. Is there something that could have prevented any of these barriers?

12. Do you have plans after you finish graduate school?
    a. Have you discussed the job market or job searches with anyone?

13. Thank you for participating today. Your contribution is greatly appreciated. Do you have any final thoughts you would like to add about navigating graduate school as a first-generation student?

14. Are you willing to share this study with other first-generation doctoral students who may be interested in participating?

APPENDIX D- CONSENT TO PARTICIPATE IN A RESEARCH STUDY

KEY INFORMATION FOR FIRST-GENERATION STUDENT EXPERIENCES NAVIGATING GRADUATE SCHOOL

We are asking you to choose whether or not to volunteer for a research study about how first-generation graduate students navigate graduate school. We are asking you because you have been identified as a first-generation doctoral student at the University of Kentucky. This page is to give you key information to help you decide whether to participate. We have included detailed information after this page. Ask the research team questions. If you have questions later, the contact information for the research investigator in charge of the study is below.

WHAT IS THE STUDY ABOUT AND HOW LONG WILL IT LAST?

By doing this study, we hope to learn how first-generation graduate students navigate graduate school. Your participation in this research will last between 60-90 minutes over one interview.

WHAT ARE KEY REASONS YOU MIGHT CHOOSE TO VOLUNTEER FOR THIS STUDY?

You will not receive any personal benefits for participating in this study. Volunteering for this study will allow the researcher to gain a better understanding of the experience of first-generation graduate students. For a complete description of benefits and/or rewards, refer to the Detailed Consent.

WHAT ARE KEY REASONS YOU MIGHT CHOOSE NOT TO VOLUNTEER FOR THIS STUDY?

To the best of our knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life. You may find some questions we ask you to be upsetting or stressful. If so, we can tell you about some people who may be able to help you with these feelings. In addition to the risks listed above, you may experience a previously unknown risk. For a complete description of risks, refer to the Detailed Consent.

DO YOU HAVE TO TAKE PART IN THE STUDY?

If you decide to take part in the study, it should be because you really want to volunteer. You will not lose any services, benefits, or rights you would normally have if you choose not to volunteer.

WHAT IF YOU HAVE QUESTIONS, SUGGESTIONS OR CONCERNS?

If you have questions, suggestions, or concerns regarding this study or you want to withdraw from the study contact Leah Vance of the University of Kentucky, Department of Higher Education and Policy Studies at leah.vance@uky.edu. The PI for this study is a

doctoral student. She is being guided in this research by Dr. Beth Goldstein. You may also contact Dr. Goldstein of the University of Kentucky, Department of Higher Education and Policy Studies, who is supervising the doctoral student at beth.goldstein@uky.edu.

If you have any concerns or questions about your rights as a volunteer in this research, contact staff in the University of Kentucky (UK) Office of Research Integrity (ORI) between the business hours of 8am and 5pm EST, Monday-Friday at 859-257-9428 or toll free at 1-866-400-9428.

DETAILED CONSENT

ARE THERE REASONS WHY YOU WOULD NOT QUALIFY FOR THIS STUDY?

You do not qualify for this study if one or more of the following apply:

- Either of your parents have received a bachelor's degree
- You are not a doctoral student
- You are a medical student
- You are a law student
- You have not completed at least one semester of your current program
- You are not over 18 years old,
- You are not a resident of the United States

WHERE WILL THE STUDY TAKE PLACE AND WHAT IS THE TOTAL AMOUNT OF TIME INVOLVED?

The research procedures will be conducted at the University of Kentucky. You will need to come 1 time during the study. Each of those visits will take between 60-90 minutes. The total amount of time you will be asked to volunteer for this study is 60-90 minutes.

WHAT WILL YOU BE ASKED TO DO?

Participants in the study will take part in a one-time interview discussing your experiences navigating graduate school that will potentially last between 60 to 90 minutes; however, an exact time limit will not be set. All interviews will be audio-recorded for transcription and thematic coding.

WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?

To the best of our knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life.

You may find some questions we ask you to be upsetting or stressful. If so, we can tell you about some people who may be able to help you with these feelings. You may also skip a question at any time.

In addition to the risks listed above, you may experience a previously unknown risk.

WILL YOU BENEFIT FROM TAKING PART IN THIS STUDY?

You will not get any personal benefit from taking part in this study.

IF YOU DON'T WANT TO TAKE PART IN THE STUDY, ARE THERE OTHER CHOICES?

If you do not want to be in the study, there are no other choices except not to take part in the study.

WHAT WILL IT COST YOU TO PARTICIPATE?

There are no costs associated with taking part in this study.

WHO WILL SEE THE INFORMATION THAT YOU GIVE?

When we write about or share the results from the study, we will write about the combined information. We will keep your name and other identifying information private. We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information, or what that information is. No currently existing data will be used for this study. The original data files (transcripts, audio files) will be kept in an encrypted electronic file on a computer on a password-protected drive that is only accessible by the PI. Audio files and electronic copies of transcripts will be kept in an encrypted electronic file on a password-protected external hard drive. Paper copies of transcripts will also be kept in locked files in Taylor Education Building. On both paper and electronic transcripts, all identifying information will be removed and pseudonyms will be used.

You should know that there are some circumstances in which we may have to show your information to other people. For example, the law may require us to share your information with:

- authorities; if you report information about a child being abused, if you pose a danger to yourself or someone else; and/or
- To ensure the study is conducted properly, the University of Kentucky may look at or copy pertinent portions of records that identify you.

CAN YOU CHOOSE TO WITHDRAW FROM THE STUDY EARLY?

You can choose to leave the study at any time. You will not be treated differently if you decide to stop taking part in the study.

If you choose to leave the study early, data collected until that point will remain in the study database and may not be removed.

The investigators conducting the study may need to remove you from the study.

ARE YOU PARTICIPATING, OR CAN YOU PARTICIPATE, IN ANOTHER RESEARCH STUDY AT THE SAME TIME AS PARTICIPATING IN THIS ONE?

You may take part in this study if you are currently involved in another research study

WILL YOU RECEIVE ANY REWARDS FOR TAKING PART IN THIS STUDY?

You will not receive any rewards or payment for taking part in the study.

WHAT ELSE DO YOU NEED TO KNOW?

If you volunteer to take part in this study, you will be one of about 20 people to do so.

The PI for this study is a doctoral student. She is being guided in this research by Dr. Beth Goldstein. There may be other people on the research team assisting at different times during the study.

WILL YOUR INFORMATION BE USED FOR FUTURE RESEARCH?

All identifiable information (e.g., your name) will be removed from the information or samples collected in this study. After we remove all identifiers, the information or samples may be used for future research or shared with other researchers without your additional informed consent.

INFORMED CONSENT SIGNATURES

This consent includes the following:

- Key Information Page
- Detailed Consent

You are the subject or are authorized to act on behalf of the subject. You will receive a copy of this consent form after it has been signed.

_____ _____ Signature of research subject *or, if applicable,* Date **research subject's legal representative* _____ Printed name of research subject
_____ _____ Printed name of [authorized] person obtaining informed consent Date

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VITA

Leah K. Vance-Berg

Education

Master of Science in Community and Leadership Development
University of Kentucky, Lexington, KY - December 2015

Bachelor of Science in Agriculture and Extension Education
West Virginia University, Morgantown WV - May 2012

Associates of Arts in Agriculture and Extension Education
Potomac State College of WVU, Keyser WV - May 2010

Professional Experience

Senior Program Advisor
University of Kentucky First-Generation Student Services
May 2021-Current

Academic Coordinator
University of Kentucky Health Corps
August 2020-May 2021

Upward Bound Academic Liaison
Kentucky State University
June 2020-July 2020

Communications Intern
University of Kentucky Graduate School
August 2019-August 2020

Graduate Teaching Assistant
University of Kentucky Center for Excellence in Learning and Teaching
May 2018-August 2020

Graduate Teaching Assistant
Presentation U! at the University of Kentucky
May 2018-May 2019

Graduate Teaching Assistant
Academic Coaching at the University of Kentucky
August 2017-May 2018

Site Supervisor
Energy Express: A Program of West Virginia University
May 2017-August 2017

Graduate Teaching Assistant
Presentation U! at the University of Kentucky
August 2016-May 2017

Vocational Agriculture Teacher
Greenbrier East High School
December 2014-June 2016

Graduate Teaching Assistantship
University of Kentucky Appalachian Studies Department
August 2013-May 2014

Summer Intern
University of Kentucky Appalachian Center
May 2013-August 2013

Graduate Teaching Assistantship
University of Kentucky Department of Agriculture Education Department
August 2012-May 2013

University Instruction

Introduction to Appalachian Studies-Online
College of Arts and Science at the University of Kentucky
Primary Instructor
Summer 2019 and Summer 2020

Developmental Writing
Transformative Learning at the University of Kentucky
Primary instructor under the supervision of Rachael Deel
Fall 2018

Academic Essentials
Transformative Learning and Presentation U! at the University of Kentucky
Primary instructor under the supervision of Molly Reynolds
Fall 2016

Introduction to Appalachian Studies
Graduate Teaching Assistant-Recitation Section Instructor
Appalachian Studies Program, University of Kentucky

Fall 2013 with Dr. Ann Kingsolver
Spring 2014 with Dr. Dwight Billings

Designing Curriculum and Assessment in Career and Technical Education
Graduate Teaching Assistant
Community and Leadership Development, University of Kentucky
Spring 2013 with Dr. Rebekah Epps

Teaching Methods
Graduate Teaching Assistant
Community and Leadership Development, University of Kentucky
Fall 2012 with Dr. Brian Haynes

Professional Conferences

Vance, L. (2021) *Lessons Learned: Online Teaching Strategies and Best-Practices* Presentation at the annual conference of the Appalachian Studies Association, Virtual, March 11-14

Ferrare, J., Miller, J., Simms, L., Vance, L. (2020) *The Multiple Ways of Being First: Exploring How Variable Forms of Social Capital Creation Differentially Shape the Experiences of First Generation College Students* Presentation at the annual conference of the Sociology of Education, Pacific Grove, California, February 21-23

Vance, L., Zimmerman, J. (2019) *Building an Understanding of Rural-First-Generation Graduate Students* Presentation at the annual meeting of the Rural Sociological Society, Richmond, Virginia, August 7-11

Vance, L. (2019) *We Ain't in the Mountains Anymore: First-Generation Graduate Students from Rural Appalachia* Presentation at the annual conference of the Appalachian Studies Association, Asheville, NC, March 14-17

Vance, L., Reynolds, M., Bradley, J. (2018) *Challenges, Changes, and Creating Success in an Academic Coaching Program* Presentation at the annual conference of the College Reading and Learning Associate, Albuquerque, New Mexico October 24-27

Vance, L., Guest, M., Carter-Stone, L., Wiser, M. (2018) *Roundtable: The Future of Appalachian Studies* Presentation at the annual conference of the Appalachian Studies Association, Cincinnati, Ohio, April 5-7

Reynolds, M., Ferrell, D., Davenport, C., Lam, J, McGlynn, M., Vance, L. (2018) - *Put me in Coach!: Exploring the Motivation & Success of College Students who Self-Select an Academic Coach* Presentation at the annual conference of the American Association of Behavioral and Social Sciences Conference, Las Vegas, Nevada, February 27-28

Vance, L. (2015) *Family Support and the Educational Aspirations of Female Youth in*

Appalachia. Presentation at the annual conference of the Appalachian Studies Association, East Tennessee State University, Johnson City, Tennessee March 27- 29

Invited Presentations

A Discussion on Support Systems for First Generation Students in the College of Arts & Sciences, Sponsored by the UK College of Arts and Sciences September 18, 2020

Demystifying Appalachia Panel, Sponsored by UK College of Education Inclusiveness Committee and the UK Appalachian Center, February 13, 2019

Honors and Awards

EPE Dissertation Award, 2019 University of Kentucky Department of Education Policy Studies and Evaluation

Dissertation Fellowship, 2019, University of Kentucky Department of Educational Policy Studies and Evaluation

Student Travel Award, 2019, University of Kentucky Appalachian Center

EPE Student Travel Award, 2018-2019, University of Kentucky Department of Educational Policy Studies and Evaluation

EPE Student Travel Award, 2017-2018, University of Kentucky Department of Educational Policy Studies and Evaluation

Volunteer Leader of the Year, 2017, Greenbrier County 4-H Program

Teaching Assistant of the Year, 2016-2017, Presentation U! at the University of Kentucky, Lexington, KY

Phi Kappa Phi Honorary, 2014, University of Kentucky**,** Lexington, KY